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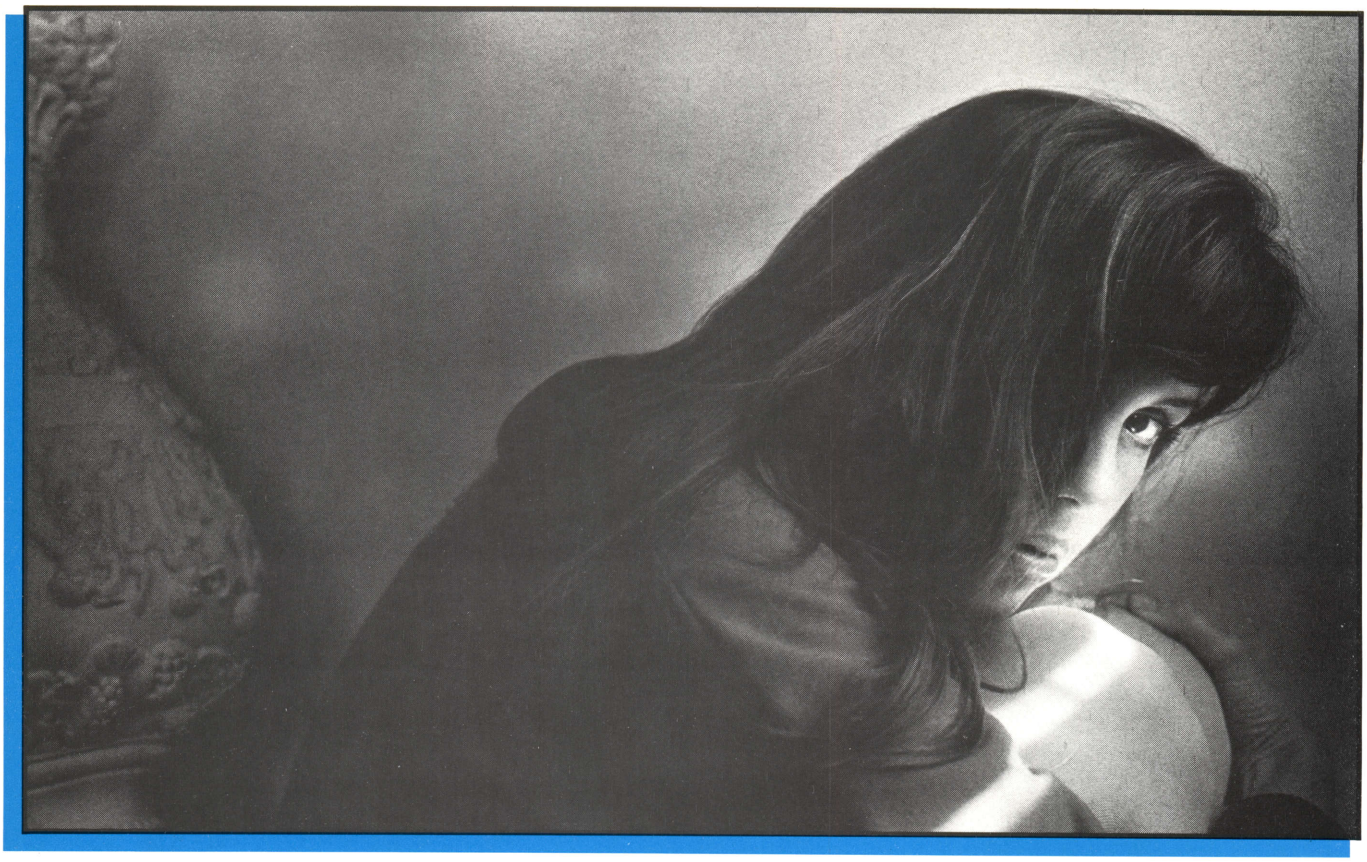

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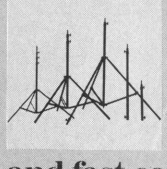

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January 1986 Vol. 67 No. 1

American Cinematographer

Features

28 Telling *Tales From the Darkside*
Extravagant stories—limited budgets

34 Griffith: An Untold Chapter
Marshall Neilan's close-up of "Larry"

40 Hollywood's Past on Display
A pictorial essay

42 The Harsh World of *Desert Bloom*
Villalobos photographs nuclear Nevada

48 *Clue:* More Than a Game
With Kemper at the scene of the crimes

58 Explorer Series Goes High and Low
Tests of Faith for Documentarians

Departments

71 Camera
Logistics of Balloon Cinematography

77 Film
New 16mm High-Speed Film

81 Filters
Behind-the-Lens Diffusion

83 Super-8
Realities of Low Budget Production

10 Letters

12 New Products

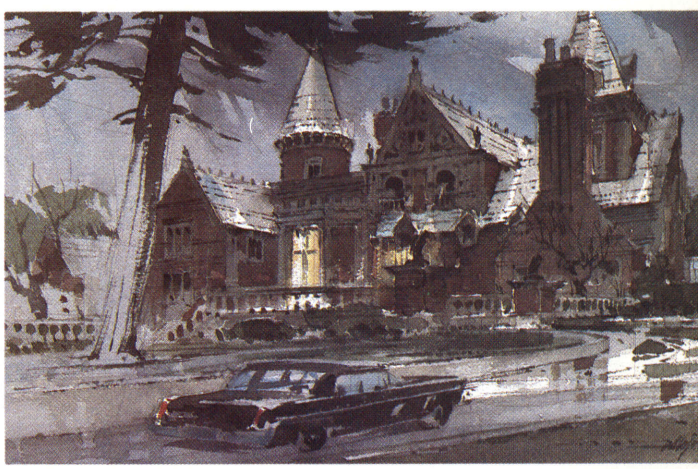
24 The Bookshelf

90 Classified Ads

94 Ad Index

95 From the Clubhouse

96 The Last Page



On Our Cover:
The mystery mansion of Paramount's *Clue* as painted in watercolors by production illustrator Bill Major from a concept by production designer John Lloyd

Dave Knox
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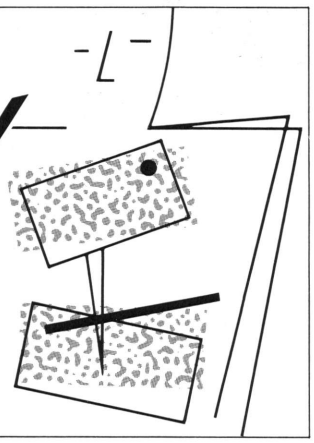

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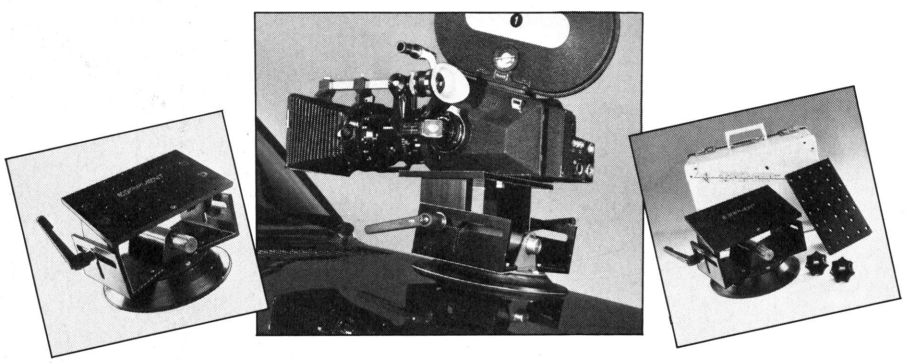

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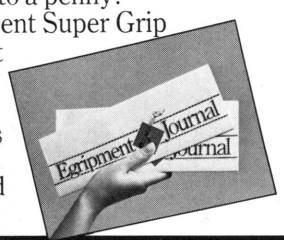

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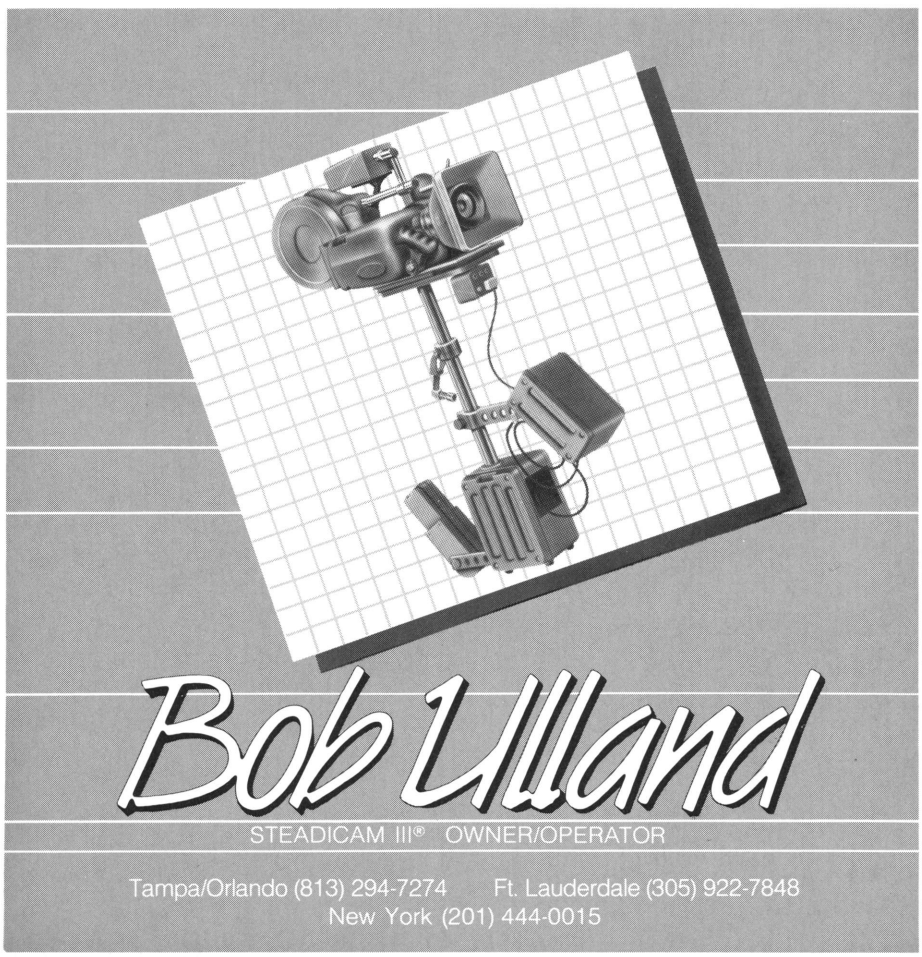

American Society of Cinematographers

The American Society of Cinematographers is not a labor union or a guild, but is an educational, cultural and professional organization. Membership is by invitation to those who are actively engaged as Directors of Photography and have demonstrated outstanding ability. Not all cinematographers can place the initials ASC *after their names.* ASC *membership has become one of the highest honors that can be bestowed upon a professional cinematographer, a mark of prestige and distinction.*

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New Clairmont Super 1.85: 41% more image area. And the TV Safe Action is the same height.

It's *not* anamorphic, at any stage.
Angle of view widens 19%. The Zeiss T2 14mm becomes, in effect, a T2 11.3mm.

A foot of rawstock costs about 30 cents. With standard 1.85:1, about 15 cents of that goes for negative you don't use.

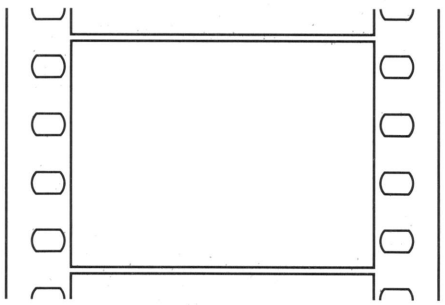
1.85 is obviously a good idea, though. Wide-screen format *without* having to shoot anamorphic. You get to use spherical lenses, which are lighter, faster, sharper, less expensive. You also get to use the *best* lenses in the world, which are Zeiss.

Bigger format, still spherical

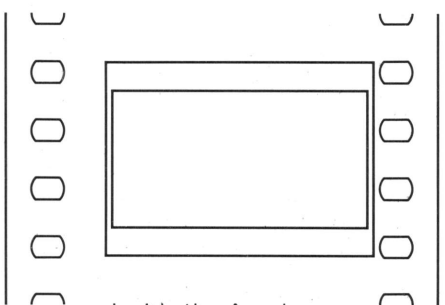
What we've done is to make the 1.85 format bigger—41% bigger than the old 1.85. We moved the optical axis over, centering it on the Full Aperture; and we used the full width available on the film.

All our Zeiss PL lenses cover the larger format. So do the three Cooke zooms—the 20-60mm, the 20-100mm and the 25-250mm T2.8.

Because of the larger negative area, every lens



Above: Full Aperture.
Below: Academy Aperture



Inside the Academy Aperture: old 1.85 format

sees a 19% wider angle of view. A 25mm lens becomes, in effect, a 20.25mm.

Wider angle, no distortion

This makes the wide-angle lenses really interesting. The Zeiss 14mm becomes an 11.3mm. But, of course, there's none of the stretchy edge-distortion inherent in some extra wide angle designs. It's still a 14mm design; and it's still a Zeiss.

Easier to compose for TV

Cameraman Richard Bowen just finished shooting *Acadian Waltz* in Clairmont Super 1.85. "With the TV cutoff the same height as the 1.85, it really was *much* easier to frame," he says. "That meant I could pay more attention to composing the image and less to worrying about formats."

Does it cost more?

Peanuts. The camera costs $125 more per week. Developing and dailies cost the same as before. The interpositive becomes a reduction optical (to the old 1.85 format) and costs about 50% more. Internegatives and prints: the same as before.

Finer grain at every stage

Interpositive and internegative stock are the

same emulsion. Both are *extremely* fine grain—much finer than the camera original, of course. So the extra image quality you've gained in the camera is still there.

TV quality: as good as ever

For television, you can make a 1-inch tape master from the timed and color-corrected answer print. The answer print is still Full Aperture. The TV Safe Area on Super 1.85 is the same size as on the old 1.85 format.

Release-print quality problem solved?

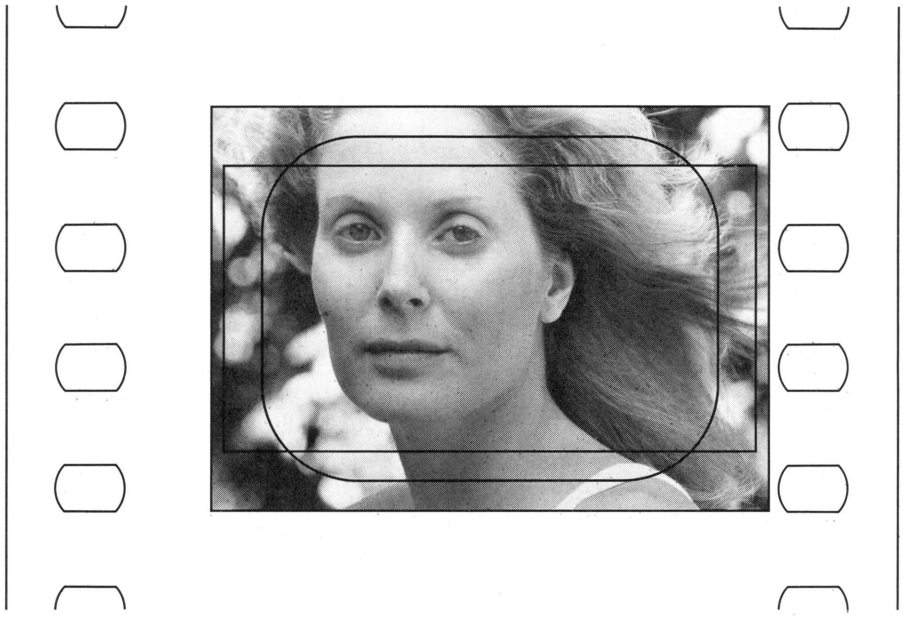
As we all know, dailies look a lot better than release-prints. One reason is the interaction of different grain patterns through four generations.

> Your work will undoubtedly look better—to more people.

Now we've reduced camera original grain by 41%. Our hope is that Super 1.85 release-prints will look as good as the old 1.85 dailies. Your work will undoubtedly look better to more people.

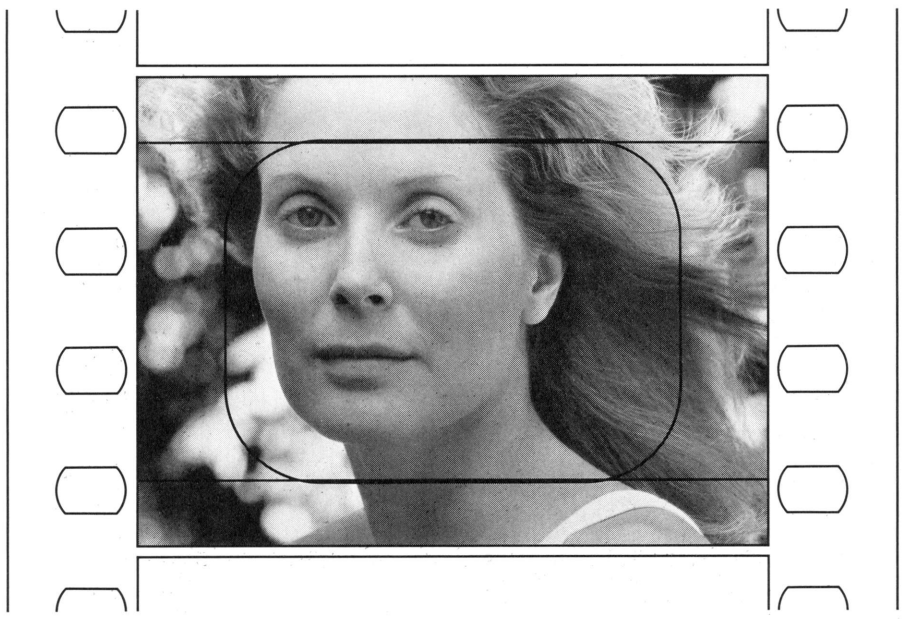
Why didn't somebody think of this before? And who did think of it?

Cameraman Jim Dickson, that's who. He came to us with the Super 1.85 idea a few months ago. We made a prototype and he shot the independent feature *Counsellor* with it. We're all in his debt. Thank you, Jim Dickson.



OLD

Above: Academy Aperture with old 1.85 format and TV Safe Action area. Old 1.85:1 measures .825 × .446 inches. Area: .367 square inches. TV Safe Action measures .713 × .535 inches.



NEW

Above: Full Aperture with Super 1.85 format and TV Safe Action area. New 1.85 measures .980 × .529 inches. Area: .518 square inches. TV Safe Action measures .713 × .535 inches.

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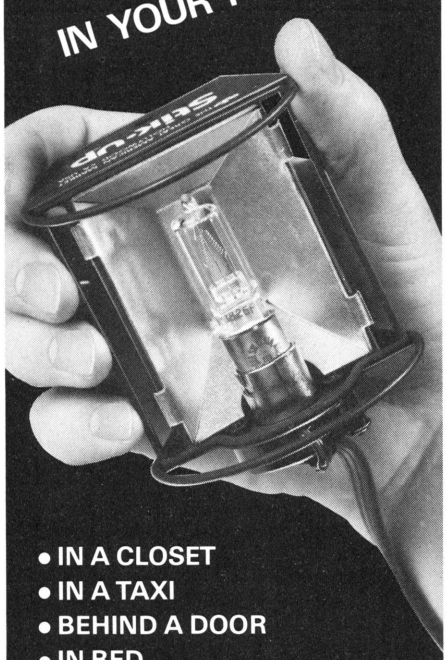

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Letters

Large Format Releases

I would like to answer the question raised by Mr. William Hewitt in the October *American* Cinematographer regarding the difference in various format releases of the first two Todd-AO features: *Oklahoma!* and *Around The World in Eighty Days.*

Since *Oklahoma!* was shot at 30fps on a 65mm negative, it could only, theoretically, be shown in a theater that had the brand new Norelco AA 2 35/70 projectors.

The 35mm version of *Oklahoma!*, was just that. The entire feature was photographed simultaneously in 35mm CinemaScope and 30fps Todd-AO. This is the only way to create a 24fps version of the film. You can't drop a frame in the printing (as a number of people thought to be the way it was done).

When *Oklahoma!* premiered on October 13, 1955 at the Rivoli Theater in New York City (now the United Artists Twin) the film in fact was on a 65mm print and the sound was interlock. The screen at the Rivoli measured 51′ wide, 25′ tall, and 13′ deep (from the center of the screen to the center of the cord).

Apparently there were test runs with Todd-AO prints from the upper balcony projection booth which exhibited some extreme keystone effects. There were some prints that were optically "squeezed" at the bottom corners so they would appear normal (undistorted) when projected. It is unclear if indeed these were ever used at public screenings since the original booth for the Rivoli (with Todd-AO and thereafter, including D-150) is at virtually a zero projection angle with the screen. Therefore, since both Todd-AO and CinemaScope have both different aspect ratios and advocate different screen curvatures for optimum presentation, there were indeed two different screen formats for *Oklahoma!*

As for . . . *80 Days,* the film was photographed at 30fps Todd-AO (again, 65mm negative) *and* 24fps 65mm as well! Apparently this method was adopted to facilitate the conversion of 35mm anamorphic prints. Todd wanted to ensure that the Todd-AO houses had 70mm prints, so he ordered the dual photography. In fact it appears as though the 35mm prints were processed in such a way so as to also have a Todd-AO aspect ratio of 2.21:1.

—Theodore E. Gluck
New York City

More Large Format

From what I have been able to find in my research on the subject, there were indeed two types of prints made for these two features and for the short subject *The Miracle of Todd-AO,* which was shown with *Oklahoma* in many theaters. One type was a special optically corrected print which was used where the projection angle was six degrees or more and where the keystone distortion on the deeply curved screen would be objectionable. The other type was a "normal" 70mm print. *Both* types were for use on deeply curved screens since that was integral to the Todd-AO format. However, after the release of these two films, it was decided to simplify the system and the format was changed to a 24 fps system and less emphasis was placed on the deeply curved screen. I have found nothing to indicate that optically corrected prints were made for any later releases. (Incidentally, a picture of an optically corrected frame of *Oklahoma* can be seen on page 1069 of the book *Audio Cyclopedia* by Howard M. Tremaine.)

—Dan Sherlock
Long Beach, Calif.

And More

Re: William E. Hewitt's question concerning Todd-AO release print formats for *Oklahoma!* and *Around The World in 80 Days*: yes, they were released for both flat and curved screen formats. The American Optical Company developed a device which corrected distortions, thus providing the release print companies an opportunity to compensate for the differing projection angles and screen curvatures in movie houses across the country.

—Richard M. Krueger
Morristown, N.J.

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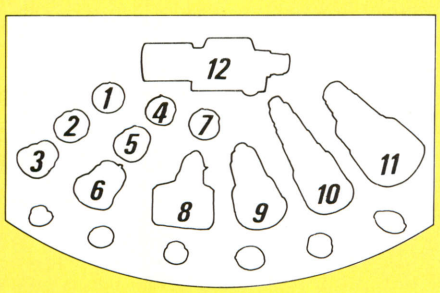

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Canon Zoom (16mm format). 8. *7-56mm T2.1.*

Canon Supertelephotos (16mm, 35mm, Video). 9. *300mm, f2.8,* ***10.*** *500mm, f4.5,* ***11.*** *400mm, f2.8. Also available: 600mm, f4.5; 800mm, f5.6.*

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Digital Repositioner With Zoom

In response to the growing demand by post-production facilities for low-cost image repositioning and other effects during film-to-tape transfers, Ampex Corporation has introduced the ATX-100 digital repositioner with zoom, announced Mark L. Sanders, vice president and general manager of Ampex Audio-Video Systems Division. The ATX-100 provides a full range of sophisticated picture manipulation capabilities for existing telecines at a fraction of the cost of a new system with similar capabilities, said Sanders.

"More than 60 percent of the commercials produced today are shot on film. The versatility of video tape editing has created a tremendous market opportunity for post-production facilities offering film-to-tape transfer services," explained Sanders. "However, in order to remain competitive, post-production facilities must be able to offer their customers capabilities beyond simple transfers, without degrading picture quality.

"Short of spending a quarter of a million dollars on a new telecine, the ATX-100 is the only viable alternative for facilities seeking repositioning and X-Y zoom capabilities for many current systems."

The ATX-100 connects easily to existing telecines with little or no modification, enabling users to correct a wide variety of errors in the film process while still maintaining high optical quality.

Consisting of a control keyboard, a computer system and a signal system, the ATX-100 provides full control of positioning parameters in the following modes: X position, Y position, size, X aspect, Y aspect and optional Z axis rotation (up to +/- 20 degrees for correcting camera tilt or skewed titles). The system is also able to alter video set-up parameters including H phase, sub-carrier phase, luma gain and chroma gain.

Because the ATX-100 provides full digital control of all processing parameters, precise control and repeatability of effects are achieved. Parameters are entered via the system's joystick or keypad and can be stored in the computer system's memory for real-time recall. Off-line storage is provided by an industry standard 5¼-inch floppy disk drive. A single floppy disk will store up to 10 files, each containing a maximum of 1,000 events.

The ATX-100 signal system accepts component RGB video signals from the telecine and provides two composite video outputs. A composite input signal is required for sync reference.

The ATX-100 supports the addition of an optional CRT display and optional printer. All mode values of past, current, and future frames can be displayed. A timeline displays hours, minutes, seconds or feet and frames for both 16mm and 35mm formats, or frames only.

The Audio-Video Systems Division of Ampex Corporation manufactures a complete family of professional video products and systems for broadcast, teleproduction and institutional applications.

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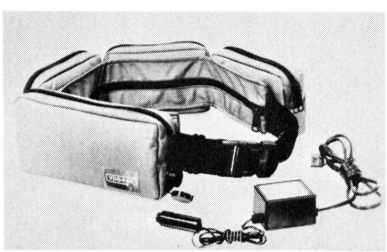
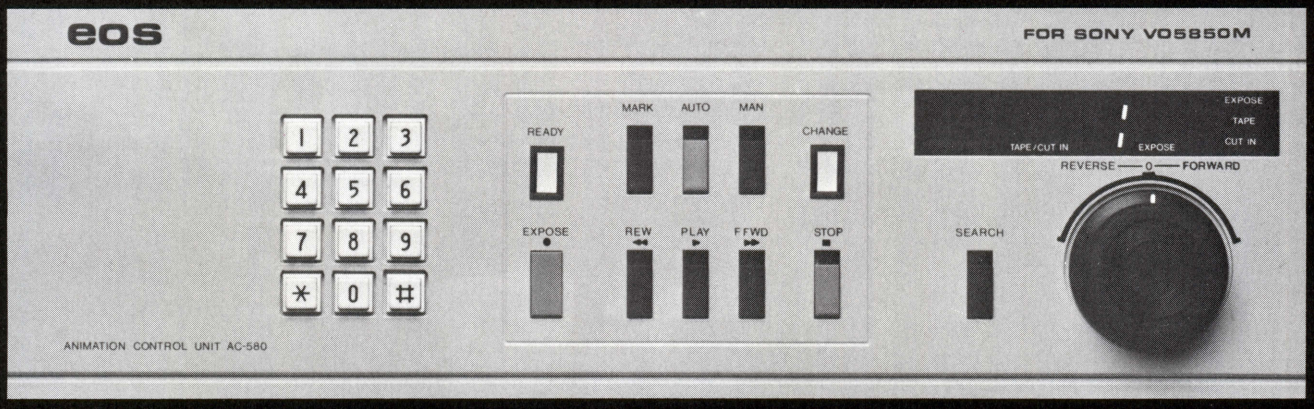


Rechargeable Battery Belt

A new high power, rechargeable nickel cadmium battery belt has been introduced by VDO-PAK Products. The new belt pack, designated NIC710, has a rated output of seven amp hours and is said to be capable of operating a VCR and camera for seven to nine hours or a 100w light for up to one hour.

continued

EOS/FAX
Video Animation Controller



FRAME BY FRAME RECORDING

This revolutionary step-saving controller opens up a new world for animators and video artists. The EOS/FAX video animation controller is a full function microprocessor designed especially for FRAME-BY-FRAME Video Recording.

Whether your application is recording one frame at a time from a graphics computer, animation stand, producing commercials, animatics, claymation, pixelation, for television, the EOS/FAX controller will do the job. You can use it for pencil tests, color checks, and time-lapse photography also.

Available in two models; the AC 580 controls the Sony V05850 recorder and the AC580J controls the JVC machines; CR8250 and PR8800.

The EOS AC 580 Animation Control Unit will operate a slightly modified SONY or JVC U-Matic recorder.

When using the EOS/FAX animation controller for animation recording, it is suggested that KCA or KCS tape is used.

The operation of the controller relies on the insert editing function of the VCR and, as such, it is necessary to have CTL (Black Burst) pulses prerecorded on the tape.

Film Style Animation Through Video Technology

The EOS/FAX controller allows the animation artist to take advantage of the latest electronic developments in video while still creating animation the old fashioned way, *one frame at a time,* without the old fashioned wait. Instant animation was an expensive luxury until now.

What does it take to get you into Frame-by-Frame Video Animation?

- The prepared artwork.
- An inexpensive video camera
- A Monitor
- An economical FAX Senior stand.
- A FAX Modified 'U-Matic' VCR
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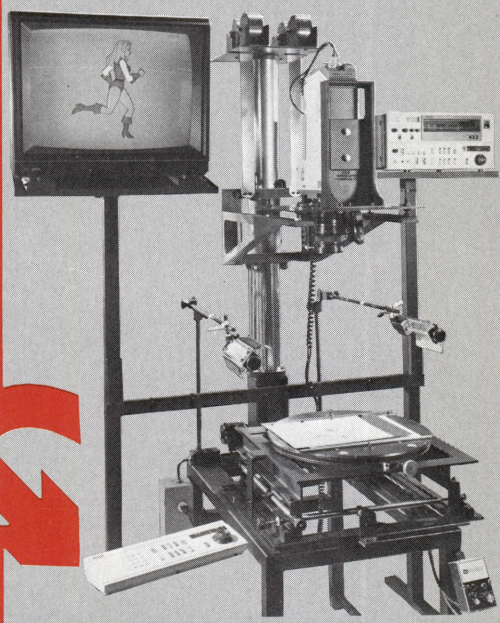

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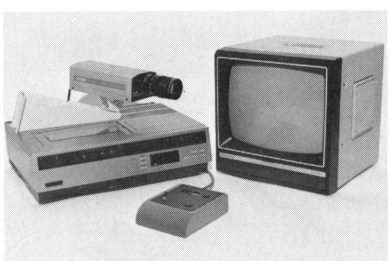
Like all VDO-PAK nickel cadmium battery packs, the belt pack uses a built-in cigarette-lighter type connector and includes a charger. Full recharge time is 14 hours. The unit can serve reliably for up to 1500 charge/discharge cycles.

For further information contact VDO-PAK Products, 164 Howes Street, P.O. Box 67, Port Orange, FL 32029.



Video Animation System

Animation Controls has introduced a new video animation testing system called the AC-112. The system allows animators to make quick pencil tests, motion control previews, stop motion tests of model movement, and tests of computer graphic image processing. Single or multiple frames are recorded on a modified VHS video animation recorder, then played back and viewed on a video monitor at the film speed of 24 frames per second. This technique saves an enormous amount of time and money when compared to traditional "pencil test" methods that use film.

Operation of the system is through the controller unit. The operator may use the manual push button or bi-directional "handshake" I/O to make automated exposures.

The AC 112 is a complete system consisting of VHS animation recorder, controller, camera, camera wall mount, zoom lens, close-up lens attachments, monitor, footpedal, ¼" video cassette T120 tape, and manual.

For further information, contact: Animation Controls, 2132 Benecia Avenue, Los Angeles, CA 90025. (213) 203-3582

New 1K Zoom Leko

A versatile lighting instrument, SCI's new 100 watt zoom Lekolite features a variation of lighting patterns from very hard edged spot to a Fresnel-like softness. The focus range is from 15° to 40°, and a new sliding yoke has been added for better balance and ease of operation.

Extruded aluminum construction makes this handsome fixture extremely durable and lightweight. The TP-22 lamp socket accommodates axially mounted tungsten-halogen lamps (500, 750 and 1000 watts) and is enclosed in a die-cast, finned heat sink for efficient cooling and optimum lamp life. Four push shutters provide easy light pattern control and therally insulated handles ensure comfortable operation.

For further information on technical features and photometrics, write or call: Strand Century, Inc. 18111 South Santa Fe Avenue, P.O. Box 9004 Rancho Dominguez, CA 90224 Telephone: (213) 637-7500.

Decorative Tape

Pro-Sheen™, a new and highly decorative, pressure sensitive film tape for use by the entertainment industry, has been introduced by Pro Tape, Inc., New York, NY.

With its bright, reflective metallic finish, Pro-Sheen Film Tape suggests many applications to enhance stage and set decorations. A special, durable adhesive system keeps the tape firmly in place.

Pro-Sheen decorative film tape is available in six, high visibility colors including silver, gold, copper, metallic red, blue and green. A wide range

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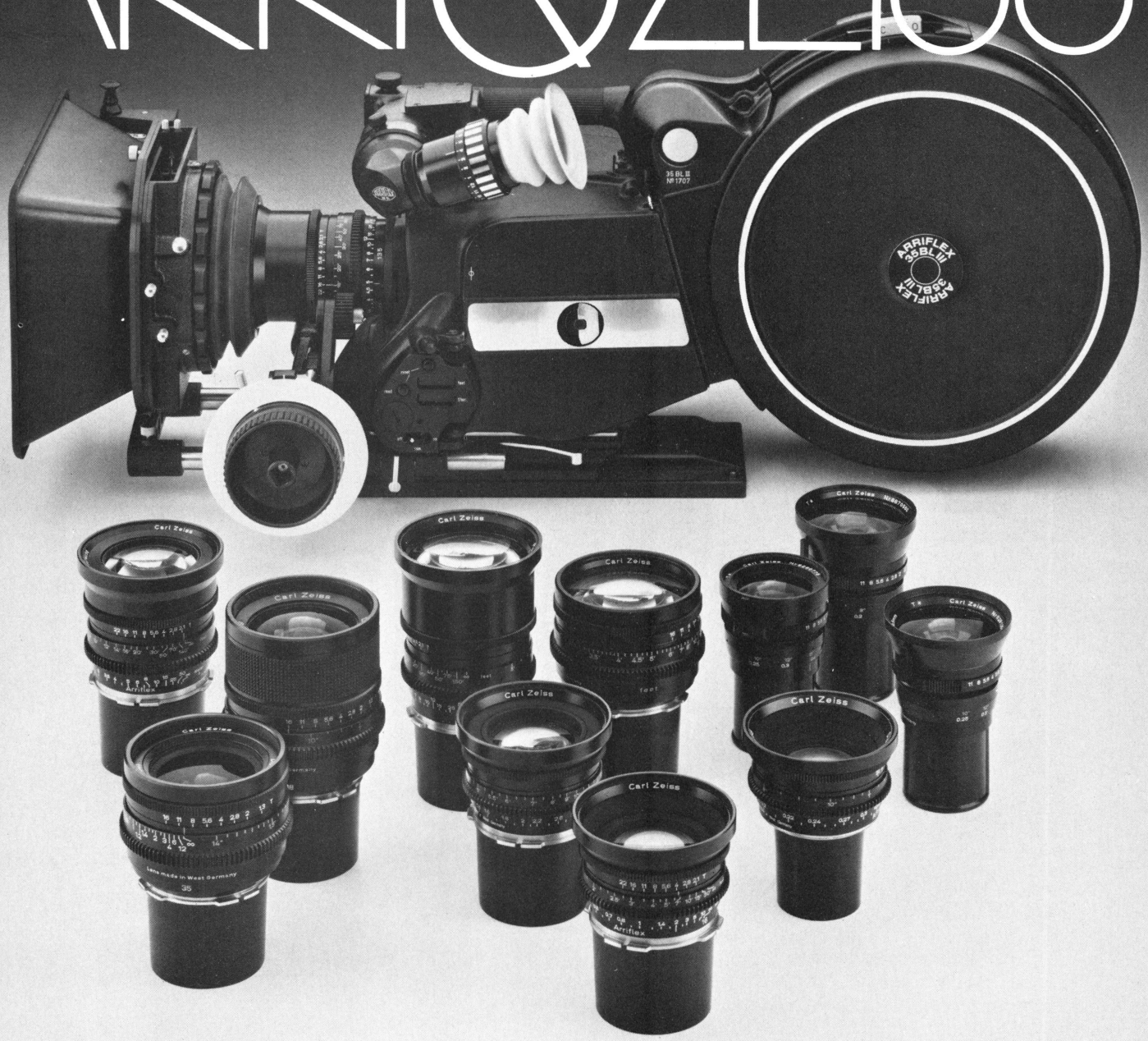

The sharpest combination in cinematography.

ZEISS has built an extraordinary series of new lenses—exclusively for ARRI and to their precise specifications.

In the ARRI/ZEISS approach, lenses are designed specifically for the full frame 35mm motion picture format, for optimum performance and common, maximum T-stops. Each lens is individually assembled from selected groups of elements for maximum cancellation of focal length errors. Zeiss-developed rare earth coatings improve flare control, color correction is absolutely matched and contrast and resolution are identical from lens to lens.

ARRI's short flange focal camera design allows the use of "relaxed" retrofocus designs for highly corrected, nearly distortion-free wide angle lenses. And the absolutely rigid, dimensionally stable ARRI film plane assures perfect back focus even in extreme temperatures with wide open lenses.

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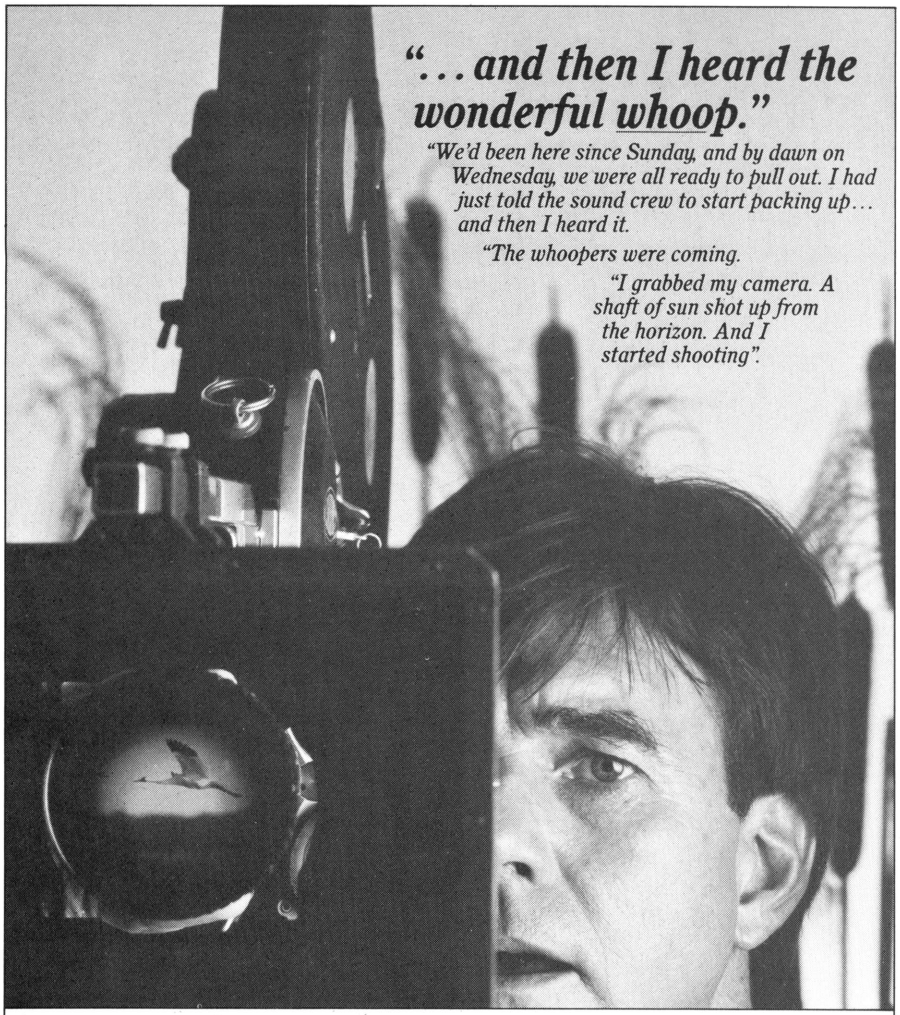
"...and then I heard the wonderful whoop."
"We'd been here since Sunday, and by dawn on Wednesday, we were all ready to pull out. I had just told the sound crew to start packing up... and then I heard it.
"The whoopers were coming.
"I grabbed my camera. A shaft of sun shot up from the horizon. And I started shooting".

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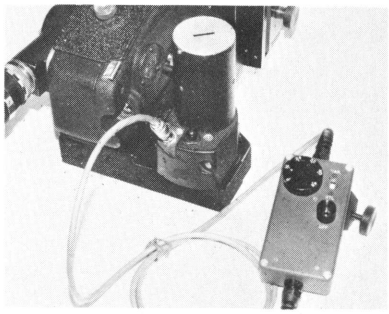


Wavspeed Variable

Whitehouse Audio Visual announces the immediate availability of Wavspeed control for Cinema Products CRA-4, CRA-6, and CRA-6A crystal motors for Arri 2C cameras.

Whitehouse's new Wavspeed control lets the operator infinitely vary CRA motor speed from 8 to 48 frames per second, thus eliminating the need to swap motors to create effects. In addition, the Whitehouse modification replaces the Viking connector with a reliable B-type Lemo connector.

Wavspeed's control box, in line with the CRA crystal motor power cable, features a direct ratio variable speed control pot. A var./XTL switch lets the operator instantly change from crystal to variable speed mode.

Self-contained, Wavspeed is housed in rugged die cast aluminum and features a handy pan handle clamp. The unit operates off 16-24v DC. The Wavspeed package includes installation on a customer's existing crystal motor.

For further information, please contact Whitehouse Audio Visual, 2037 Granville Ave., Suite B, Los Angeles, CA 90025. (213) 479-8313

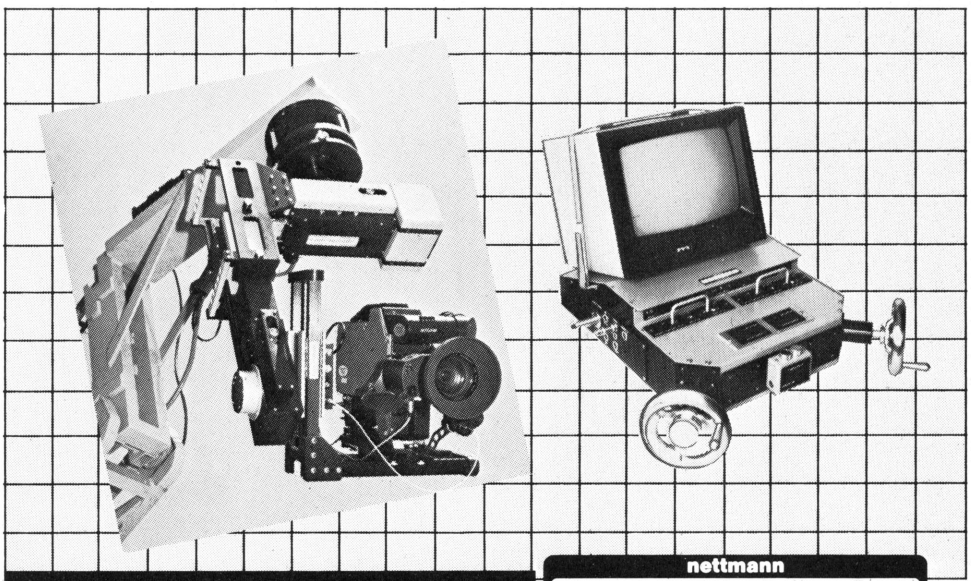
New Dolly Pedestal

A new camera support system called the Video 20 Dolly Pedestal is being introduced into the American market by Sachtler Corporation of America.

The primary feature is a pressurized, multiple load, balance system that compensates for variations in camera weight. The balance system, built

continued

A pan and tilt head, for shots you couldn't make before. At Camera Mart.



Nettman CAM-REMOTE™ Remote controlled Pan and Tilt Head

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The CAM-REMOTE™ is really something special.

This production quality, remote controlled unit can just as easily be used on a crane, a dolly or from any fixed location. Its highly sophisticated electronics allow *360° movement in any direction.* No cables to wrap. And all lens and camera functions are controlled remotely from a console which offers several controlling options.

Here, truly, is a state-of-the-art pan and tilt head that opens new creative vistas in film and tape production and makes "impossible" shots not only possible, but simple.

Designed by two-time Academy Award winner Ernest "Bob" Nettman, the CAM-REMOTE™ brings a new element of safety to action and special effects photography, since it allows dangerous scenes to be captured from a safe distance or an unusual perspective.

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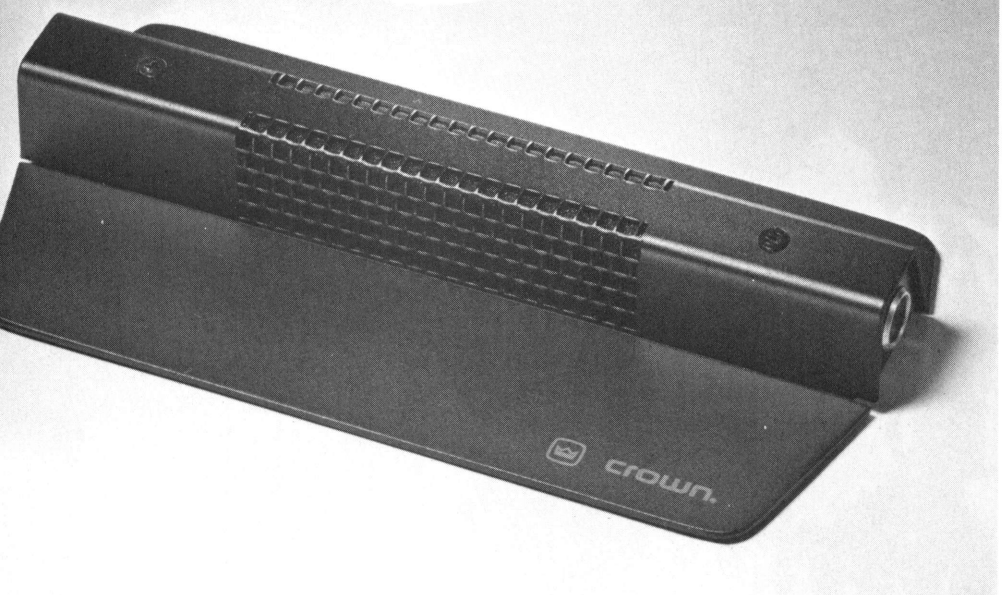

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It's no surprise that when the key engineers of our PZM® microphone technology set their sights on combining the benefits of the boundary effect with unidirectionality, the fruits of their efforts would be nothing less than superior.

After all, Crown has been leading the way in boundary technology longer than anyone in the industry. And, like the PZM project, our commitment to developing the "premiere" unidirectional, surface-mounted microphone rings true.

Introducing the PCC™-160 Phase Coherent Cardioid™ from Crown.

Designed for easy mounting on a boundary surface, the PCC-160 utilizes a subminiature supercardioid mic capsule to create a directional pattern which improves gain-before-feedback, reduces unwanted room noise and rejects sounds from the rear.

For stage reinforcement, podiums, news desks, or for hiding in sets, the PCC-160 offers superior performance.

And because the microphone is mounted on a boundary, direct and reflected sounds arrive at the diaphragm in-phase. The result...wide, smooth frequency response free of tonal coloration or unnatural sound which can occur with conventional microphones.

Self-contained electronics eliminate the need for a sometimes awkward in-line preamp box. The PCC-160 can be powered directly from the console or other remote power source. Or if battery power is convenient, a battery supply unit can be inserted anywhere in the mike line...right up to the console or mixer.

For maximum flexibility, the PCC-160 features an exclusive three-way "bass tilt" switch which allows you to tailor, up or down, the low-end response for special applications or unusual boundary sizes.

Due to its low profile and "go away gray" finish, the PCC-160 microphone becomes nearly invisible in use, making it ideal for the stage, newsroom or lectern top.

But beneath its cloak of dark gray, the PCC-160 is protected by a heavy-gauge, all-steel body, tough enough to stand up to even the most severe abuse.

The PCC-160. A microphone meeting the needs of today's sound professional with today's most advanced technology.

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into the pneumatically supported center column, gives the cameraman total control under any shooting condition, always providing smooth and precise camera movement. Because it works equally well on location as it does in the studio, it transfers in-studio capabilities to on-site location shooting.

In operation, it offers the cameraman a great deal of flexibility. It can be combined with the Sachtler Semi-Dolly or used as a stable, stationary unit. It accepts with equal ease Sachtler's guaranteed leakproof video 18, 20 and 25 fluid heads. Sachtler is so confident that its unique design and manufacturing quality control will provide the cameraman with maximum assurance of trouble-free operation along with total camera movement control, that it recently extended its warranty from one to three years.

For further information, write or call Sachtler Corporation of America, 400 Oser Avenue, Hauppauge, NY 11788, (516) 231-0033.

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Lynn Greenberg Electronic Teleprompting introduces the latest in color electronic teleprompters, utilizing state-of-the-art technologies.

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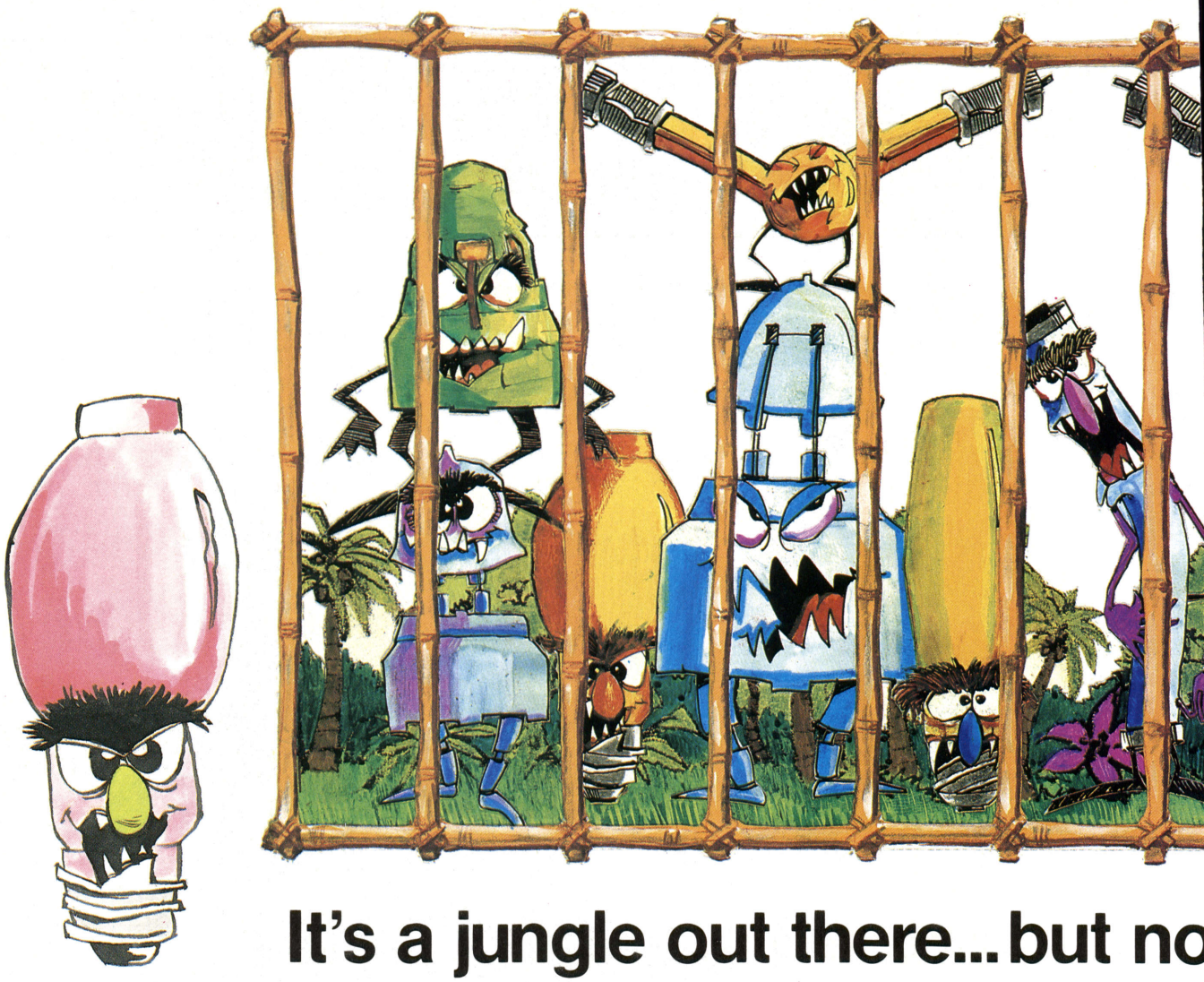


It's a jungle out there... but no

Once upon a time, lighting was easy. In the days of black and white all you needed to worry about was whether you had enough light to shoot. Even in the early days of color, the lighting was either incandescent or daylight, and Kelvin was easily controlled with a few amber or blue gels.

Then suddenly, a whole new generation of efficient new lights appeared. Every location had its own brand of lighting monsters. From energy-efficient fluorescent lights in office buildings, to various breeds of discharge lamps lighting streets and shopping malls. They created a new set of problems for the cinematographer and gaffer.

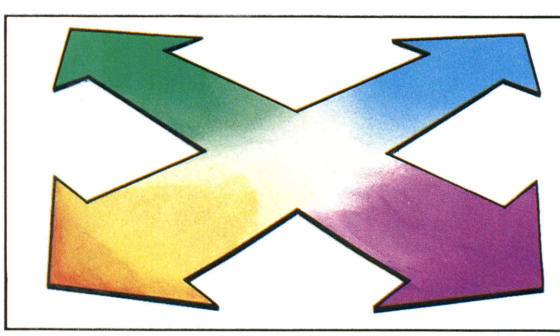
For film emulsions and video, the output of these powerful new "white" lights varies across the spectrum from blue-green to orange. To complicate matters more, most of them shift as they go from burn-in to burn-out and some vary as much as 600 degrees Kelvin even when brand new.

Just measuring Kelvin is no longer enough. Between the Mired Shift from amber to blue, and the Color Compensation to adjust the green, balancing the lighting in a tough location has turned into a monstrous task.

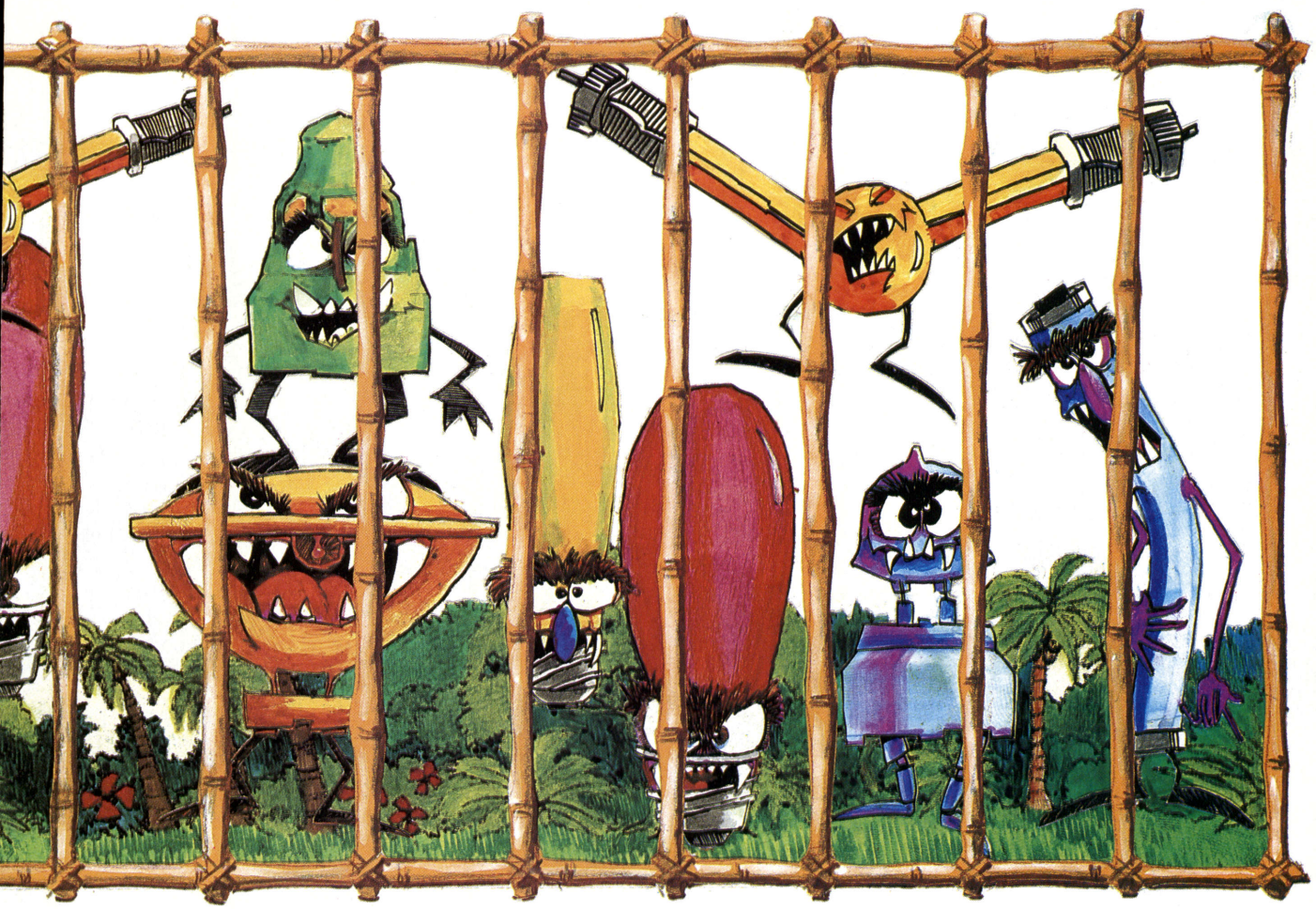
Until now . . .

Armed with a little information, a handful of lig control filters, and a good color meter, you can co trol virtually any light you encounter. Here, briefly how the Rosco system works:

Measure the Kelvin temperature (LB scale) of t light and find the blue or amber Rosco filter that giv you the Kelvin adjustment you need.



With the increased use of discharge sources, the problem Kelvin correction has become a two-dimensional problem: lig ing balancing for Kelvin on the blue-amber scale AND co correcting on the green-magenta scale. The new Rosco syst handles both.



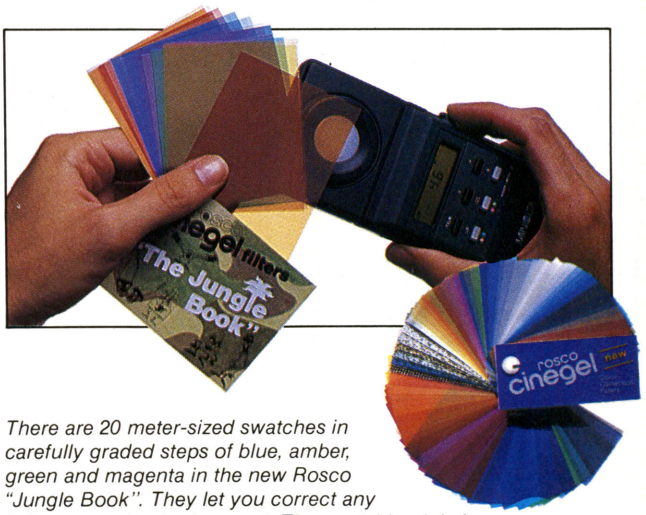
ou can tame the monsters...everywhere

en check the Color Compensating factor (CC scale) of the light d find the green or magenta Rosco filter that gives you the green rrection you need.

u now have the combination of Rosco gels you need to balance *at* light to the standard *you choose*. In the most difficult maze of o-green, too-blue or too-orange lights, you can balance to *your* ndard quickly, without delaying the production.

th Rosco assured quality, you can be confident of getting iable results every time with any kind of light regardless of how it deviated from the expected standard. Whether it's new or old, color or off, you can quickly and easily "tame" it to your ndard.

the technical information you'll need is in Rosco's new "Lighting The Jungle" Handbook and the Rosco "Jungle Book" swatch-ok for location lighting. Both are yours free, for the asking.



There are 20 meter-sized swatches in carefully graded steps of blue, amber, green and magenta in the new Rosco "Jungle Book". They let you correct any light to any standard you set. The swatchbook is free from Rosco or your rental house.

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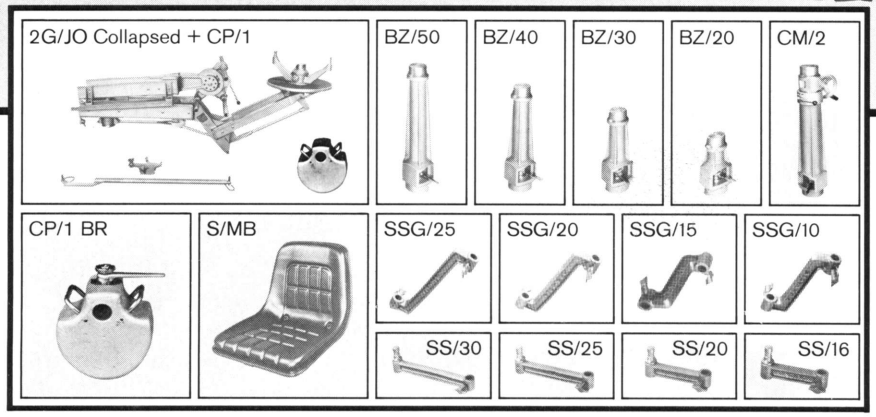

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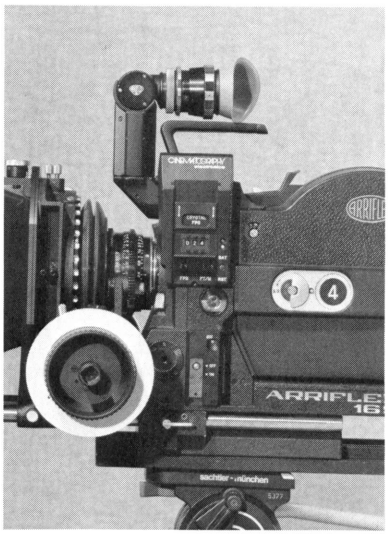

16SR Speed Control

The Cinematography Electronics 16 SR Speed Control adds performance and features in a stylish package to the Arriflex 16 SR Camera. Start with 75 crystal speeds from 1 fps to 75 fps in 1-frame increments, and 150 crystal speeds in 1-frame increments for the high speed SR camera. Add to this a red digital LED tach and footage/meter counter with reset; a red and green LED battery condition monitor; and an out-of-sync beeper and volume control, which forewarns of low battery or irregular camera speeds. All features are conveniently arranged on the left of the camera.

The high-tech shape of the 16 SR Speed Control is not only stylish but also structural. It is machined out of two solid blocks of aluminum, and anodized to a satin finish with engraved lettering. The integral sliding door provides protection of the digit switches. The versatile 16 SR Speed Control is compact and weighs only 7 ounces (200 grams).

For more information contact: Cinematography Electronics, Inc., 1625 Stanford Street, Santa Monica, CA 90404. (213) 829-1811. △

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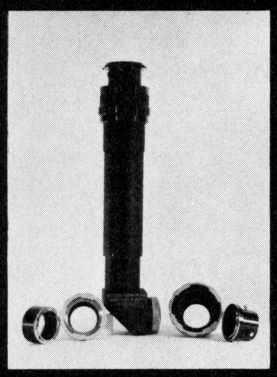

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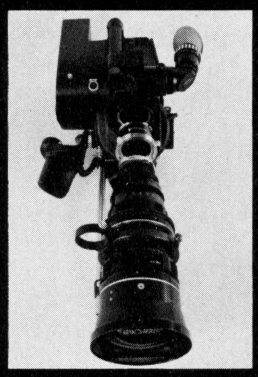

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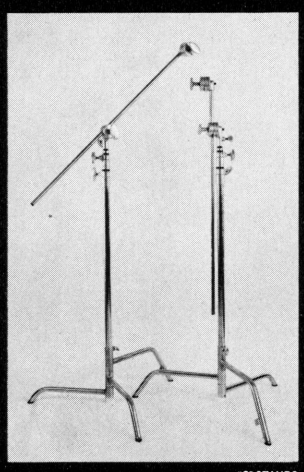

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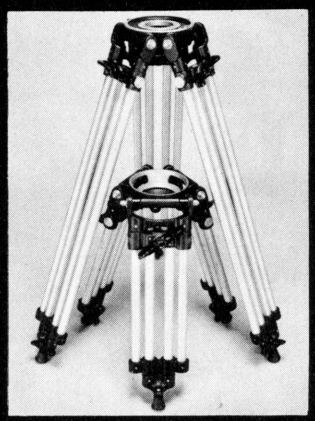

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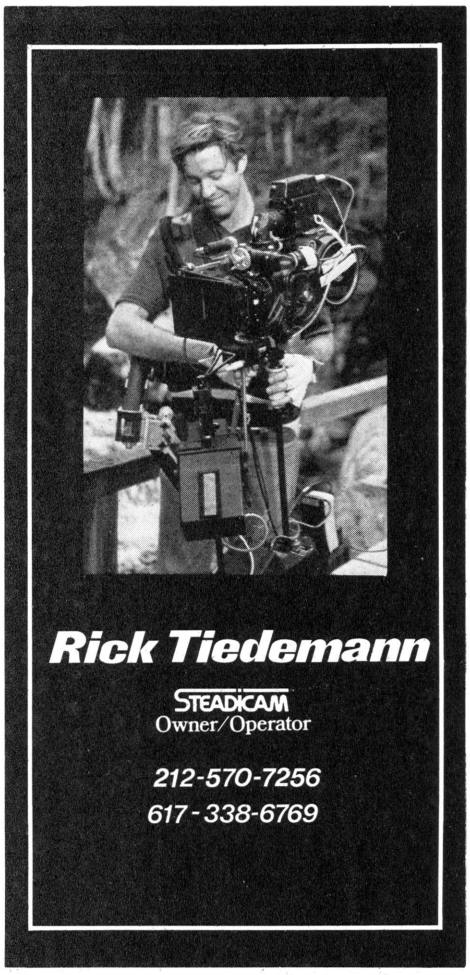

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The Bookshelf

by George L. George

A revealing look into the work and life of a noted director, **Conversations With Losey** offers interviews by French film critic and historian Michel Ciment, Joseph Losey's articulate views on Hollywood politics, studio interference and censorship contrast with the sense of relative freedom he enjoyed during his self-imposed exile in England. Visual techniques, plot development and cinematic style are also discussed in this significant book *Methuen, NYC, $39.95/16.95).*

Charles Higham's biography, **Orson Welles,** is a well-researched work, rich in vivid details about the often bizarre episodes in the multi-talented filmmaker's life. Higham's personal animosity towards Welles is clearly stated, but somehow does not prejudice our perception of Welles's gifts and achievements *(St. Martins, NYC, $19.95).*

In **Agee: A Life Remembered,** the intensity of James Agee's private and intellectual pursuits, with cinema ranking high among them, are paid eloquent tribute by friends, relatives and colleagues. They recall, in this memoir edited by Ross Spears and Jude Cassidy, their personal involvement with this uncommonly gifted man *(Holt Rinehart Winston, NYC, $19.95).*

An expanded edition of *Stargazer,* Stephen Koch's study of Andy Warhol, delves insightfully into the freakish world invented and materialized by the artist in many provocative movies *(Marion Boyard/Scribners, NYC, $11.95).*

Star in French surrealist films, top Paris fashion model, high society portrait photographer and ubiquitous wartime photo-journalist round out a unique woman's destiny as recorded in **The Lives of Lee Miller** by her son, Anthony Penrose. Miller's stunning photographs and her independent spirit illuminate this adventurous chronicle *(Holt Rinehart Winston, NYC, $29.95).*

Judy Carne's **Laughing on the Outside, Crying on the Inside** is the bittersweet saga of *Laugh-In*'s sock-it-to-me girl, a candid account of a life full of bruising experiences and courageous comebacks *(Ramson, NYC, $16.95).*

Widely publicized as a sex symbol and the embodiment of lust, Jane Russell was in reality a "good" girl, deeply religious and friendly, Her engrossing autobiography, **My Path and My Detours** makes this perfectly clear in a high-spirited, but somewhat dampening, way, (*Watts, NYC, $18.95).*

Encyclopedic in scope and extensively illustrated, two massive volumes trace the growth of Hollywood: **The Paramount Story** by John Douglas Eames and **The Films of 20th Century-Fox** by Tony Thomas and Aubrey Solomon. Every single feature produced to date by each studio (over 3000 and 2500 respectively) is listed with complete cast-&-credits and other relevant data *(Crown, NYC, $35; Citadel, Seacaucus, NJ, $29.95).*

Jerry Vermilye expands his historic surveys of movies with **The Films of the Twenties** and **The Films of the Thirties.** Entertaining and knowledgeable, each abundantly illustrated book lists full cast-&-credits, plot summaries and critical reviews. Vermilye selections are sound and his comments vividly evocative of the times *(Citadel, Seacaucus, NJ, $19.95 and $9.95 respectively).*

The behind-the-scenes story of the filming of *White Nights* is unreeled in **Portrait of A Film.** Stunning illustrations and perceptive texts by photographers Eve Arnold, Anthony Crickmay, Josef Koudelka and Terry O'Neil record the creative process which combined the talents of dancer Mikhail Baryshnikov, cinematographer David Watkin and director/producer Taylor Hackford *(Abrams, NYC, $35).*

The producer's job in filmmaking is expertly defined in **The Movie Producer** by Paul N. Lazarus, himself a producer. Based on a course

continued

Director of Photography - Jan DeBont
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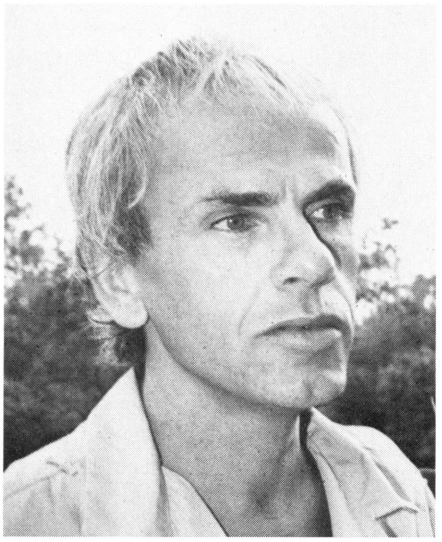
"In the most difficult situations LTM's HMI Lights hold up"



Jan DeBont is a respected Director of Photography. His film credits include; JEWEL OF THE NILE, CLAN OF THE CAVE BEAR, FLESH & BLOOD, FOURTH MAN, and ALL THE RIGHT MOVES.

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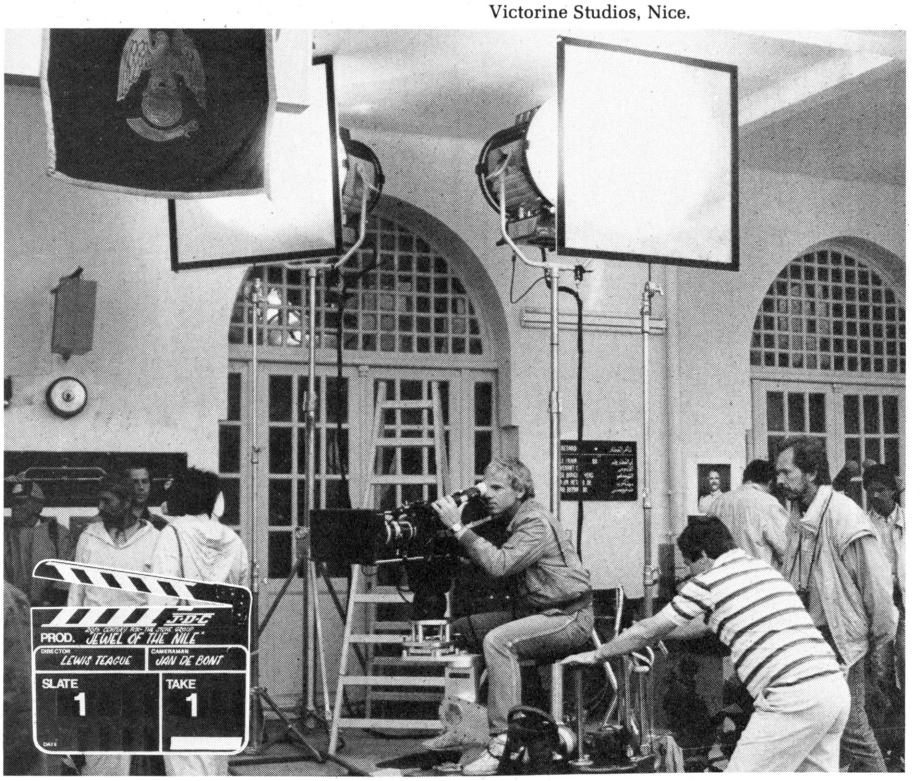
LTM International Production Services provided lights and grip equipment during shooting of JEWEL OF THE NILE in Morocco and at La Victorine Studios, Nice.



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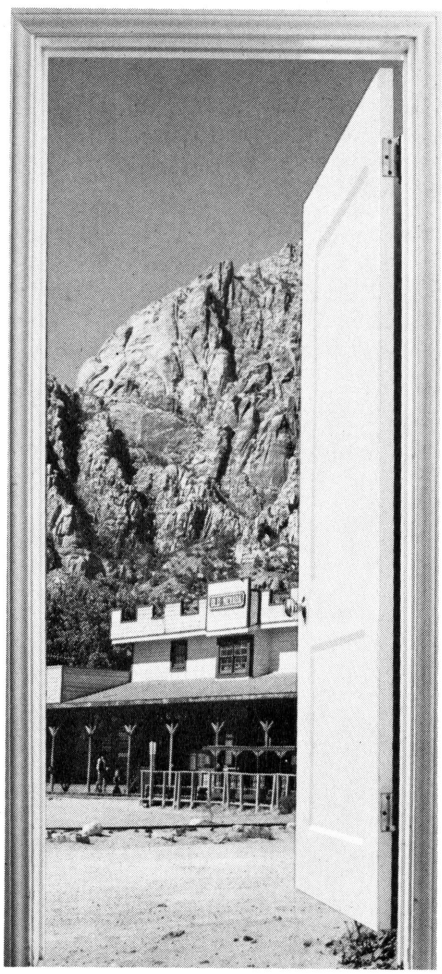

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he gave at UCLA, it covers informatively the main areas of the producer's work—development, production, marketing—and tallies facts, case histories and anecdotes that clarify the complex process *(Harper & Row, NYC, $7.95).*

In **Questions of Cinema,** Steven Heath enlists psychoanalysis, semiotics and Marxism in a structuralist review of meaningful elements in a general theory of film *(Indiana U. Press, Bloomington, IN, $25/9.95).*

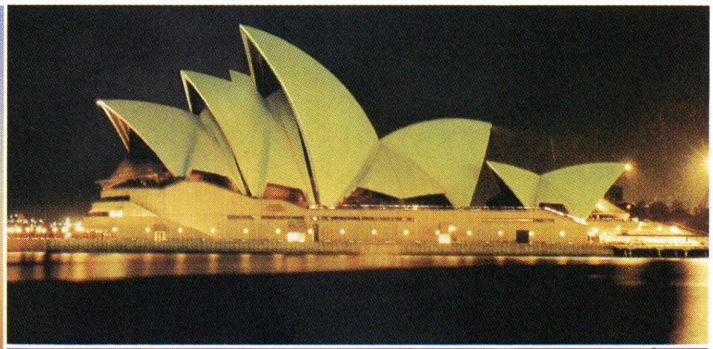
The use of film to create the proper popular enthusiasm for WWII is surveyed in two current books. Bernard F. Dick's **The Star-Spangled Screen** and Allen L. Woll's **The Hollywood Musical Goes to War** probe the themes, story lines and dramatic devices that helped mold public opinion into active support of our war aims *(Kentucky U. Press, Lexington, KY, $26; Nelson-Hall, Chicago, $9.95).*

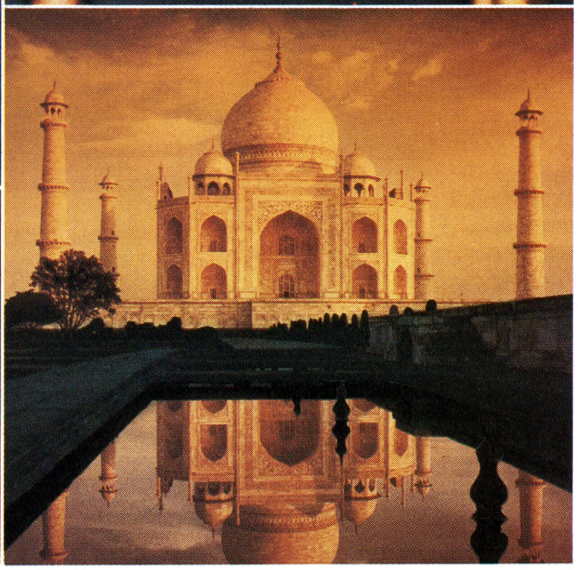
The effectiveness and relevance of film's influence on popular culture are discussed by educators in **Hollywood as Historian,** ably edited by Peter C. Rollins. *The Snake Pit, Wilson* and Chaplin's *City Lights* are among the films analyzed in this significant study *(Kentucky U. Press, Lexington, KY, $10).*

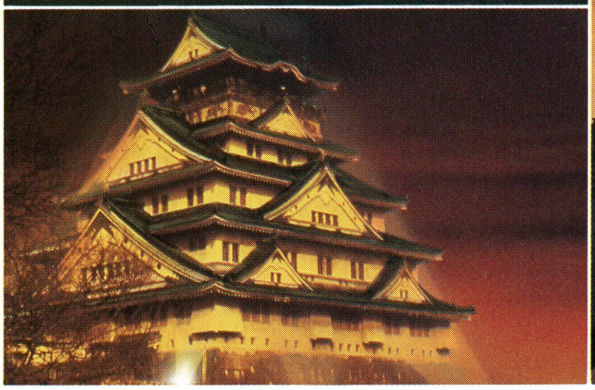
The artistic and social ferment of the 1930s is reflected in **New Theatre and Film,** a stimulating anthology of articles selected by Herbert Kline, the magazine's original editor. The talent, either authors or subjects, appearing in its pages include most of the significant artists of the day. All eloquently voice their deep concern with the threat of fascism and war to the popular arts *(Harcourt Brace Jovanovich, NYC, $24.95/13.95).*

In **On Your Own,** actress Brooke Shields combines a naturally short, unaffected autobiography with sensible advice to teenagers on personal grooming, dating and coping with life *(Villard, NYC, $16.95).*

Peter Carrick's **A Tribute to Fred Astaire** is a well-documented and perceptive biography of the uniquely gifted 86-year old song-and-dance man *(Merrimack, Salem, NH, $14.95).* △







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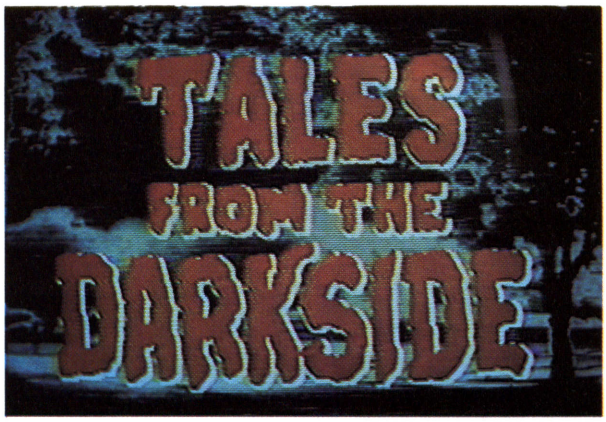
Connie Stevens, bathed in blue light, in the episode titled "The Unhappy Medium."

Photos by Tamar Peri and Robert Weekes

Telling



by George Turner

Hard as it may be to believe in these times of stratospheric production costs, there is a television dramatic series which has just completed a profitable second season without benefit of those big network bucks that make most shows possible.

Tales From the Darkside is a half-hour, independently syndicated show produced out of New York by horror maestro George Romero's company, Laurel-TV, Inc. Each episode is a separate story, unrelated to the others except that it has elements of the supernatural. All new sets are constructed for each show. "Name" players such as Susan Strasberg, Eddie Bracken, Keenan Wynn, Larry Manetti, Phyllis Diller, Danny Aiello and Bill Macy are featured. The scripts are originals by well known writers. The company maintains its own studio facilities.

And yet, these 48 fascinating mini-dramas were made on what their producer, T.L. Castronova, calls "a scant budget." They have proved so successful that the company plans to double its schedule next season and produce 48 more episodes as well as to embark upon a companion series called *Scary Tales*.

There are 48 shows per season, half of them made in New York and half in Los Angeles. The production season is shorter in New York, where they use two sound stages, alternate directors of photography, and shoot the shows back to back. In Los Angeles the shows are produced in a mini-studio converted from a former paper warehouse in the downtown area.

The L.A. director of photography is Gideon Porath, who initially took the job with some misgivings.

"Like most people who start out in independent features, I had a fixed idea about serial television and the realm of creativity within the framework," Porath said on the set of an episode titled "Effect and Cause." "The way *Darkside* is structured, however, was the key to my understanding of the manner in which television works and what it is about. It was my first job in television and has been far more rewarding than I expected.

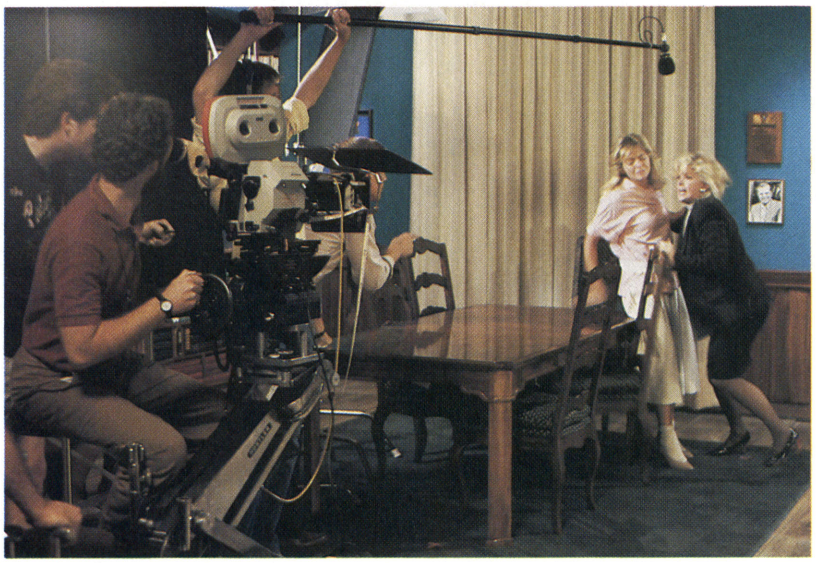
"It's not like a sitcom or a 'soap,' where you know the light always goes over there and you always light with so many footcandles. The best thing about it being an anthology series is the constant change and variety. While the crew remains virtually the same, every show is unique. We have a new director, actors, sets and, of course, a different story. The situation offers a cinematographer an opportunity to do a wide range of things."

The Los Angeles-made *Tales* are made almost entirely under one roof. Front offices, workshops, stage and editing rooms all offer immediate access to production personnel. Screening of dailies is held in the large front office, where a screen is lowered every evening. The *modus operandi* of the company is geared to speed and efficiency.

"We prep for one week and then shoot two shows back-to-back on the same stage, repeating the cycle throughout the season," Porath explained. "I have a pre-light day and five shooting days for each episode. Whereas Jerry Golod, the executive producer, and Tom Castranova, the producer, maintain a certain style and continuity to the series on a seasonal basis, it is up to the directors to come up with their 'vision' for the show they are about to do. As scheduling is very tight, I don't get as much preproduction time as I might want with a director.

"Some weeks before a show, however, either during another show or during a prep week, which isn't as intense, the director and I will get together and discuss the script and go over lighting, mood, camera moves and any special equipment we might need. Since so many directors are involved, there are no set rules in my approach. Some directors discuss camera only in very general terms, leaving more of it to me, while others are very specific about the visual elements of their piece. Likewise, with some of the directors I spend more time than with others. Over the course of the past season I worked with nine different directors (three directors did two episodes each) and have learned not to feel a preference for one 'kind' of director over another, for each presents a different set of challenges.

"Our brief meetings continue, change and are revised until the last moment before production starts. Ultimately, though, because of the structure of the show, it remains the director's responsibility – with the help of all of us



Porath takes a light reading of actor Charles Knatt.* Below: *Connie Stevens and Carolyn Clark enact a dramatic scene which is captured for TV by boom man Matthew McFadden, Porath, and first assistant cameraman Michael Cardone.

Producer-director Tom Castronova shows Lawrence Tierney and Phyllis Diller how to handle a pig in a bed for "The Trouble with Mary Jane" episode. **Below:** *John Harrison, director; Cardone; Dan Graff, gaffer; Porath; Nat Boking, grip; Alicia Craft, second assistant cameraman, and Christina Greco, continuity supervisor.*

and under the producer's supervision – to coordinate all the departments and prepare the show."

Darkside is one of the few nationally distributed shows in America to be produced in 16mm, although the practice is widespread in Europe. "We use the Panaflex 16 ("Elaine") and Eastman Color negative 7294," Porath noted.

"You learn to make compromises," he admitted, "but with the limitations and the budgets that we have, I think we do pretty well. About 90 per cent is done in the studio, but occasionally we go out in the field. We do a few night exteriors, and on one show we had a full day of exteriors. Once we even built a space ship in the parking lot.

"Working on a stage where you can control lighting for months at a time definitely isn't common on low budget productions. It's wonderful. It allows you to light from above and from the floor, to invent sources, to bounce the hell out of light or just hard-light – all within the course of a week. More importantly, it presents an opportunity to spend time learning what different units will do to light, how the size of the lens affects it, and what subtle or not-so-subtle changes different kinds of diffusion will make in the light emitted by a light unit. Since you expose a lot of film every day for a long time, you get to know the emulsion pretty well, thus improving skills and being able to judge your lighting and exposures more critically."

Although Porath experiments with lighting effects a great deal, he prefers to avoid experimenting with emulsions. "With the film, I'm very straightforward," he said. "Since it is in 16mm and has a way to go before it gets aired, I'm careful about my exposure and I never push the film or use any glass in front of the lens. Because we prefer using the high speed stock 7294 over the slower 7291, I rate it according to Kodak specs at ASA 320, so as to minimize the grain buildup which becomes noticable when you rate it higher – we're talking 16mm here. Depending on the nature of the episode, I will usually key anywhere from 16 to 40 footcandles (at 320, 32 footcandles translates to T2.8). The extra speed of the fast emulsion makes me comfortable and is helpful in a production like *Darkside*. So, now that I'm 'comfortable' with 7294, John Mason from Kodak was here the other day and gave us a roll of 7292, the new negative soon to replace 7294." (Porath later reported that "92 is terrific.")

That the parameters are different when dealing with 16mm is obvious, but Porath feels that good technique can overcome these limitations.

"When you shoot 16mm for TV you test the film to its limit – in the theatrical-dramatic sense, that is – so every bit of quality you get will help down the road," he observed. "That holds true with the film, the lab, and more so with the camera. The complement of lenses we got from Panavision is more complete than with other 16mm cameras, offer-

ing a bigger choice if you need it. The zoom lens we use is a Cooke 9-50 T2.5, and it's an absolute pleasure. Though it is a bit slower and doesn't have the range of a Zeiss 10-100, the image won't 'breathe' when you rack focus, plus it will let you focus down to some 18 inches as compared to Zeiss's insistence upon a respectable distance of three feet. Needless to say, the difference isn't just a lens. As has been said many times, the camera has been designed with the assistants in mind, making Michael Cardone and Alicia Craft, my assistants, very happy. Michael even talked them into giving me the new compact gear head developed for the camera but not yet available as a rental item. It's a little smaller, lighter, and makes operating easier (compared to a fluid head) when you put on a 1200' magazine, which we do all the time. The big mag is a favorite with loaders, who get a well-deserved break, with the lab, which has less film to splice, and – last but not least – with the producers, because we save on short ends and by having a half hour's worth of film in the mag at a time the accumulated savings in production time can be pretty impressive."

Inasmuch as *Tales From the Darkside* deals with extraordinary happenings, special visual effects often are called for. For example, in Michael Kube-McDowell's teleplay, "Effect and Cause," Susan Strasburg, her leg in a cast, struggles to escape from a house that is changing crazily:

Armed with her flashlight, Kate catapults to the front door. She turns the lock: it squishes in her hand. She turns the doorknob and pulls – it elongates like putty. She drops it in horror – it swings like a disfigured pendulum. Now Kate shines the light at the door itself: inlaid into the wood is the original whitewashed painting now fully restored to its original image . . . .

Such effects are done in the camera rather than in post-production, Porath explained:

"We do that for two reasons, the main one being budgetary. The other is that with 16mm a lot of the effects are intrinsic because of the nature of the A-B rolls, such as dissolves and fades. It's a funny paradox that the Panaflex camera is a sophisticated and expensive piece of rental equipment not often seen on a low budget shoot, but it's really well suited for such productions. We've taken advantage of features that normally are not built into a 16mm silent camera, such as shooting in reverse, adjusting the shutter to shoot a TV monitor with live action in sync, or using a projector sync lock box for rear screen projection. You know what happens in 16mm when you go to second or third generation with your opticals. By avoiding an optical house we not only manage to save money but stay away from generation loss, which is critical with 16mm. We've run the camera upside down, backwards, done single-frame and time-lapse and cloud tank shots. When we have a special effect for a show we usually do a test in advance while we're working on another show."

Porath said that processing is done at Foto-Kem, in Burbank. "Although Foto-Kem is not a very big lab, or perhaps *because* it isn't, they do good work there and are very attentive to a cinematographer's needs. Steve Van Anda has been very helpful to me since a few years ago when I came in with an AFI student project. Their stock in trade is 16mm, but I've done two pictures with 35mm and they did quite well.

"I get one-light prints. On some episodes I'll call the printing lights and on some I'll see what the timer comes up with. They pretty much know my taste and how I like the dailies, so we've worked it out well. They send out a slip with a readout of the lights so that even if I didn't call yesterday's printing lights I can still judge the exposure to see if and how it varies. In the five months of *Darkside* there was only one time that I called in to complain, and it turned out that the night timer was on vacation, so for the rest of the week Alicia Craft, the second assistant cameraman, would just write the printing

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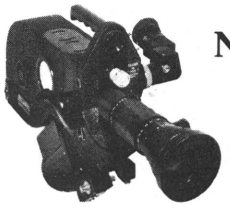

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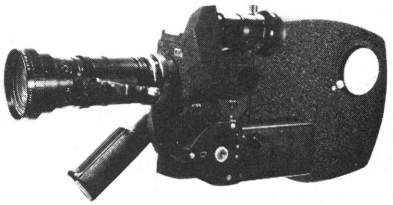

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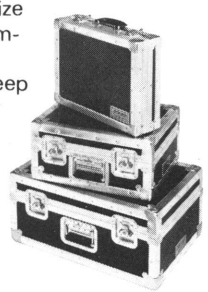

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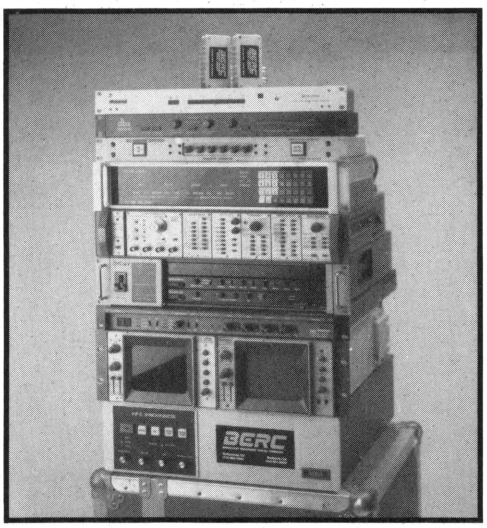

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points on the cans, and that was that."

Two to three weeks are needed before a fine cut of the show is made. "The immediate access to the editing rooms has been a tremendous blessing to me," Porath noted. "When the show is cut, they give us a low contrast answer print. If it is struck on the off-week I see it at the lab with Mato, who usually times all our shows, along with the director and our associate producer/production manager, Anthony Santa Croce, who will later supervise the film to tape transfer. If, however, a print is struck when we are still going strong on another episode, I get the print and run it on the Moviola during lunch, make notes, and talk to the timer. We will also use the editing room quite a bit if we have to pick up an insert or do a matching shot two weeks later.

"Some of the problems you encounter in TV are similar to those in the film world, while others seem to be from a different planet," Porath emphsized. "*Darkside* was the first time I ever got a job from a producer rather than a director, and it was the support and backing of producer Tom Castronova I needed in order to function successfully throughout the season. Tom gave me a tremendous amount of freedom that allowed me to do a better job, and runs a company that is a warm and friendly place to be."

Both Castronova and Santa Croce seemed genuinely fond of the *Darkside* crew. "Despite the fact that we're under the gun all the time, there's a relaxed and comfortable feeling here which starts up there (New York) and carries all the way down," Castronova said. "Often, in the film business, egos and tempers flare up, but this place is pretty smooth.

"We have a nice little production family here and we're confident that we can take our family anywhere and they won't embarrass us, and that any job we can come up with, they can do."

△

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Griffith —an Untold Chapter

by Marshall Neilan
Edited, with an Introduction and Notes, by Robert S. Birchard

Editor's Note: He was Irish – and for some that was enough to explain the great talent and equally great penchant for self-destruction that were the opposite poles of Marshall Neilan's personality. One of the foremost directors of the silent screen, Neilan drank and partied his career into oblivion. He directed his last picture – Swing it, Professor *starring Pinky Tomlin – for Ambassador in 1937, and spent the last 20 years of his life surviving on the paternalistic sinecures that Hollywood was so fond of bestowing on its fallen. There were personal loans – few of which were ever paid back; and there were projects – all unrealized. For all of this, he was by all accounts a man of magnetic charm, and he was to have one final triumph – playing the part of Senator Fuller in Elia Kazan's* A Face in the Crowd. *But throat cancer robbed him of his voice, and a new career as an actor was denied. He died on October 27, 1958.*

It is said that Mary Pickford paid for his funeral – in remembrance of Daddy Long Legs *and* Amarilly of Clothesline Alley *and* Stella Maris *and the brilliance he helped her create; but Neilan's effects – the treasures of a nearly 50-year career in Hollywood – wound up in a trunk, stored in a damp and forgotten corner of the kennels at Harold Lloyd's Greenacres estate. Some clothes, some shoes, carbon copies of I.O.U.'s and a few incomplete manuscripts.*

Among the papers Neilan had a copy of the third chapter of D.W. Griffith's unfinished autobiography [he had collaborated with Griffith on the project] which he used as the basis for three unfinished articles about Griffith. Apparently Neilan hoped to make some quick money in the wake of Griffith's death, but for the most part two of the pieces only paraphrase the already ghost-written reminiscences of Griffith. They are awkwardly typed, sometimes incomprehensible, and add little to our knowledge of Griffith.

The third manuscript – shorter than the others, and more deeply felt – titled The Man Griffith, *is an intriguing portrait of the director of* The Birth of a Nation *and* Intolerance. *It is Neilan's account of working with Griffith as a fellow actor in the Barney Bernard stock company and of their on-going intermittent association up to 1914. It gives a vivid picture of Griffith the itinerant actor, the budding director at Biograph, and the increasingly confident "Shakespeare of the screen." Unfortunately, Neilan tells us nothing of his own association with Allan Dwan at the American Film Mfg. Co., and little of his work at the Kalem Company – but because it may be Neilan's only autobiographical writing, it commands attention – and because it provides a unique portrait of D.W. Griffith's unknown years as an actor, it is a special memoir indeed. If follows:*

THE YEAR 1905 – I was fourteen and a member of the Belasco stock company in Los Angeles. A competitive house, the Mason, was housing a traveling company headed by the popular west coast comedian Barney Bernard. Bernard happened to catch our matinee, spotted yours truly, and came backstage and engaged me (as we say in the theater) for a replacement part in his show. This was my big chance. Playing stock in town was one thing – to support an important star on the road was another story. To travel (I had never been out of California) was another step up that long ladder in our profession.

Flattered by a small announcement in one of the local papers, and escorted to the train by neighborhood pals, I boarded the train for San Francisco, arriving in time to catch one performance of Bernard's show. I had one rehearsal the next morning, and opened the same afternoon for their last matinee. After the evening show that night we hit the long trail for what was then known as the "Cort time," a string of small opera houses throughout the northwest and extending as far east as Denver.

At my first rehearsal I was introduced to the cast and met a tall, hungry thespian named Lawrence Griffith. He played the heavy in the piece, and just from the rehearsal I knew that he was about as bad a ham as I had ever seen – or would probably ever see. He was a likable chap, though, and right away we hit it off.

My salary was twenty-five dollars, and I soon learned that Griffith's was forty-five – so you can figure that money was quite important. Griffith suggested we share rooms in each town to cut down expenses, which we did.

Most people of the theater love that morning sleep – some even sleep all day. But being young, ambitious, and curious to see new cities, it was my habit to rise early and see the sights. Griffith had other ideas – mostly women and games of chance. One day he would appear on the scene with a bankroll that would choke a horse – again, by one glance at his "Hamlet" expression, I would know that he was tapped out and prepare for the touch he would spring on me. One thing I always noticed was that whenever he was well-heeled he headed for the telegraph office to wire money home.

The little towns of Medford, Salem, and others in Oregon entranced me. I had never seen big rivers, and great cherries on the trees were a relief from the common oranges of California. My job in these river towns was to find the swimming hang-outs, and Griffith and I would spend hours relaxing and swimming. He was keen on athletics.

In Portland there was an exposition going on, and Griffith and I covered it. There was a moving picture theater on the grounds, and Griffith dragged me in to see a French film. The thing was in color – I later learned that even in 1905 Pathé of France was making pictures in color – girls used to paint each tiny frame by hand. The story I recognized was a miniature presentation of the well-known *Zaza*, which I had seen played in stock companies many times. This film did something to Griffith. He talked about it into the night, and in the days that followed Griffith became damn boring making me listen to scenarios he would write. It's a wonder I didn't get plot poisoning. From then on, in each town we would hunt up a nickelodeon, and thus became movie fans.

Marshall Neilan as he looked in 1912 at the age of 21.
Opposite:
D. W. Griffith in a portrait taken during his Biograph period.

His women and his gambling, though – I remember being in a smoker en route between Anaconda and Butte, Montana, and watching four of the boys playing poker. One dropped out, and Griffith sat in. An hour before he had nailed me and put the bite on me for twenty – leaving me three dollars until payday. Griffith sat down and placed the twenty on the table next to the open window. A puff of air, and out the window went the twenty! With a grim smile Griffith got up and grabbed me by the arm so I wouldn't start bawling in front of the boys.

"Well, Neilan (he always called me Neilan), we lost that damn fast, eh?"

"Where the hell do you get that WE stuff?" was my choked retort.

In Reno Larry's woman complex was brought home to the whole company in a very embarrassing manner. We arrived early in the morning, dog tired. He had to sit up all night in the chair car because several bad bookings had put us behind in salaries, and there was no money for Pullman's. Larry and I went to a hotel – me to bed, and Larry to call on a gambler he claimed he knew. I was used to this, and sure enough he showed up just before curtain time loaded with loot.

Although Griffith is said to have never used a script when shooting, this photo proves that he did refer to a script in his office on at least one occasion.* Below: *Neilan, in turtle-neck sweater, with J. Warren Kerrigan in a 1912 Flying "A" film directed by Allan Dwan.

The theater, the old Reno Opera House, was situated across the tracks. On one side of the house was a row of boxes. Looking through a peephole in the curtain, I noticed that these boxes in particular had curtains drawn to shield the occupants from the audience on the main floor. Curious, I asked the house electrician for the reason. He laughed and explained that the boxes in question were reserved for the local ladies of the evening, and the drawn curtains prevented the married men and their wives from seeing said ladies, so there would be no embarrassment among the husbands.

One or two of the people in our cast had played Reno, and as they made their respective entrances they received applause. Then Barney Bernard came on. Long a favorite on the circuit, he received a swell ovation. Then came our villain, Lawrence Griffith, and a tremendous round of applause came from the curtained-off boxes. Well, the laughter from the audience damn near broke up the show. Everyone in the house knew where our villain had been spending his time.

This was our last performance of the season, and we were all in doubts as to the future. Some had money, and would wend their way back to San Francisco. Others were wondering where the hell they would sleep, let alone eat. But as the final curtain came down, Barney Bernard and Scott Seaton, his manager, told us all to meet them in the lobby of the hotel at midnight. Bernard went to a local gaming house where he was known and hocked his wife's jewelry – and his own. At the hotel he paid us all in full, and we returned to San Francisco first class. In the theater men like Bernard are few and far between. On the road he would corral me, send me to his sweet wife, and she would make me read the Bible and spell certain words. They knew I was fourteen and missing school, and they wanted to help me acquire some kind of education.

Next morning, Larry and I stood on the front of the ferry boat watching the approaching San Francisco skyline. He was to go east, as he had played out the coast and was homesick for the big city. I was to return to Los Angeles and school, as I had promised my mother I would drop the theater and get a necessary education. Larry handed me a watch – a phoney gold number, but I still have it – and we parted.

A few years later I was selling automobiles during the day and going to business college at night. Walking up Spring Street on Saturday, I saw a familiar figure approaching.

"Hello, Larry," I chirped.

He stopped and gave me that Belasco stare and said, "Well, well, if it isn't Neilan."

We entered a bar and ordered drinks. Under the impression that he was playing some local theater, I asked him where he was playing. He hesitated, then replied:

"No, I am monkeying around with the films – that is motion pictures."

Since last meeting him I had become a rabid movie fan, knew all the company trademarks, and most of the people that appeared on our local screens.

"What company?" I asked.

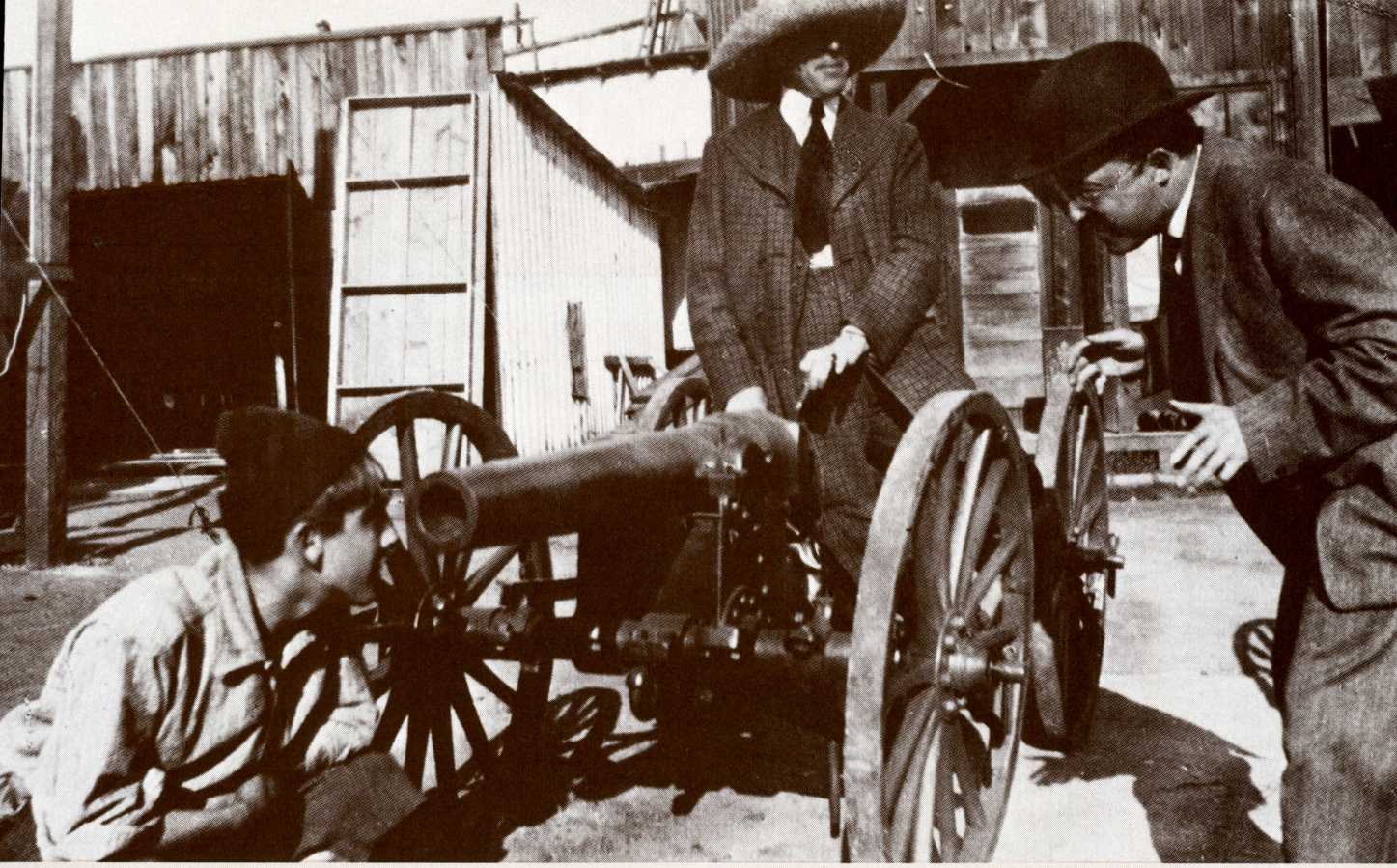
"Biograph," he replied.

Suddenly it dawned on me – "My God, you're not GRIFFITH of the Biograph, are you?"

"Yes, my lad, that's me – Griffith of the Biograph."

Even in 1910 he was world famous. He was using his real name – David Wark Griffith. Although Biograph never gave any of their people screen credit of any kind, he nevertheless was known to every exhibitor in the country.

He had finished his work in California, and was leaving for New York the next day. We had



A rare shot of Griffith in a playful mood, clowning on the Triangle-Fine Arts lot in 1915. Griffith is about to ignite the powder, Jack Pickford is th victim, and the ma on the right is unidentified.

a few more drinks, cutting up a few touches meantime, and then we broke up. In parting, he asked, "By the way, you still have the watch?" I produced it, and he said, "Well, I'll be damned. Someday I'll give you a real one." And he was gone.

Strange to say, two years later I was in the films co-starring with Ruth Roland for the Kalem Company. I met Griffith one night at a party. He pretended to have never met me before, and I let it ride – but his attitude burned me up. Later that night we bumped into each other, and he said:

"Neilan, come and see me. I have seen you in a couple of those lousy Kalem's, and I believe I can teach you to act."

This was the real burn-up, and I blew two fuses. I moved about from one company to another, and then one day I sent him a wire in New York asking for a job. A quick reply said COME AT ONCE – no mention of salary, transportation, or anything. He knew that to be a member of Griffith's Biograph was the ambition of damn near every actor and actress in the business.

Biograph had built a new studio in the Bronx and, unknown to Griffith, had entered into a deal with Klaw & Erlanger, the big theatrical company of that period. With K&E's powerful producing organization controlling hundreds of stage hits, Biograph felt that they were getting a jump on the other film companies in securing this famous group of producing partners. When Griffith and his company returned from Los Angeles after producing *Judith of Bethulia,* he found the new studio as busy as a bee hive – all kinds of new executives running around, and no one paying a damn bit of attention to *the* D.W. Griffith.

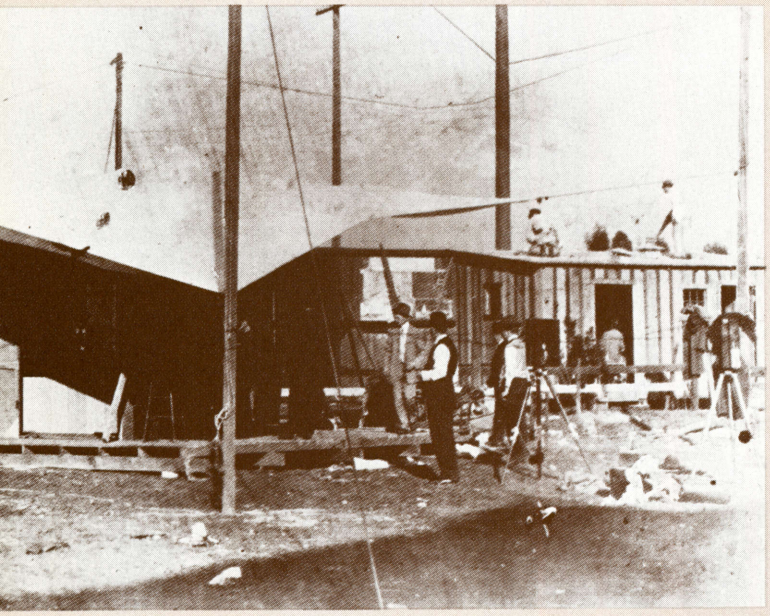
Demanding some kind of explanation, Biograph told Griffith that they were stepping up production – putting on more directors to make the pictures. Of course, Griffith was still the number one director – could hire and fire actors, etc. – but the pictures were to be produced by directors other than Griffith.

Griffith was hurt to think that the company he had brought to the top rank in the film industry would go ahead without consulting him before entering into such a gigantic deal.

From that moment on, Griffith was disinterested in the activities of the company. If a picture was being made that used stars that he felt he had created, he would sit by and watch rehearsals, but he never produced another picture for Biograph.

You couldn't expect to have the Biograph-Griffith situation to come to a boil without repercussions hitting the trade, and soon every competing film producer knew that Griffith was unhappy and might be weaned away from the powerful Biograph.

Adolph Zukor wanted Griffith for his Famous Players Company, and a meeting was arranged between Griffith and Edwin S. Porter, one of Zukor's partners. Famous Players was making nothing but film productions of stage plays, because they had an affiliation with the renowned Frohman Company. Griffith was still burning over the Klaw & Erlanger setup, and wanted no part of any theatrical venture, believing that he could make better moving pictures from original stories, books, etc.



l scene at the Biograph Studio in os Angeles. The . A. Convention Center now covers his spot.

A smart group downtown, having fiddled around in a small way with the picture business, heard of the situation and managed to have a long session with Griffith, the outcome of which found him joining Reliance-Majestic for release through the Mutual Film Corporation.

Now came the time for Griffith to quit Biograph, and he was shocked beyond words when the officers of the company calmly shook hands with him, wished him luck, and said good-bye as though he was just going away for the weekend.

I was in the hospital at the time, and Griffith came to see me and told me all the details. In leaving his old company he could have taken every star, director, and cameraman with him by just a nod of the head, but he did not do this. whoever quit did so on their own volition, and many did. Biograph began to get scared and began raising salaries right and left, much to Griffith's glee.

He knew I detested acting and had the ambition to write, produce, and direct pictures, so with this in his mind he offered me a chance to do just this with his new company. This was a chance I had long waited for, and I was sorely tempted – but I had been ill in the hospital for over ten weeks, during which time the Biograph had sent a messenger with my salary each week. It is customary to drop a salaried employee after two week's absence due to illness. True, I had contracted my illness while making pictures for Biograph in the swamps of Florida, but nevertheless I had no contract or agreement by which I could hold the company responsible. It was apparent that the company was short of leading men, and couldn't afford to lose another of their famous stock company to Griffith. I told Griffith that I felt I owed Biograph some kind of loyalty of reciprocation for their kindness.

"Figure how much salary they have paid you," he replied, "and I will give you a check to repay them."

This showed the man's honesty and sense of fairplay; but we agreed, however, that upon my release from the hospital I would return to Biograph and do a couple of pictures which would release me from my obligation.

The makeshift Reliance-Majestic studio down in Union Square was nothing but a converted loft; but Griffith plunged into production heart and soul – directing pictures himself and supervising others. Again New York's weather called for an exit to California and its sunshine, and Griffith left.

In Hollywood he managed to lease the studio formerly occupied by the Kinemacolor Company, which had failed making color pictures. To the superstitious in the theatrical profession this was sure death – like walking into a theater that had housed plays that had failed – but Griffith was riding high and handsome.

Across Los Angeles, Biograph resumed production at the old car barn studio. Without Griffith, they had ten directors working under no supervision other than the head scenario writer and the business men in the New York office. The Biograph-Klaw & Erlanger affiliation turned out to be a bust. The pictures were stagey, the actors unknown to the movie audience, and the action cluttered up with dialogue titles. There was too little moving picture and too much reading matter on the screen. Biograph sales declined.

Griffith, on the other hand, made pictures that moved. His *The Escape* and *The Battle of the Sexes* (both released in 1914) hit the bull's eye with the public and paved the way for his history-making epic, *The Birth of A Nation.*

NOTES

The reference to Griffith's being a movie fan as early as 1905 is interesting in light of his first wife's assertion that he had not yet seen a film when he first applied at Biograph in 1908. Linda Arvidson Griffith's book, "When The Movies Were Young", is generally accurate, but it simplifies Griffith's first movie efforts, neglecting to mention that he applied at Kalem and worked at Edison before joining Biograph. He had also appeared in a play, Edward McWade's Winchester, in early 1904, which included a filmed sequence of the heroine riding to the rescue – probably one of the earliest "Multi-media experiences." This certainly must have made an impression on Griffith.

* * *

Griffith arrived in Los Angeles with the Biograph Company in January 1910, and established a studio at the corner of Grand Avenue and Washington Street (the current site of the Los Angeles Convention Center). The company returned to New York in April of the same year. In his *Films In Review* career article on Neilan (November, 1962), Jack Spears claims that Neilan saw Griffith on each of his Western jaunts, and served for a time as Griffith's chauffeur. In late 1911 or early 1912 Neilan joined Allan Dwan at the American

Another view of Biograph West.

Film Mfg. Co. studio in La Mesa, California. He followed the company when they re-established their headquarters in Santa Barbara in July of 1912. He stayed at American as actor and director until October, 1912, when he joined the Kalem Company in Los Angeles. He appeared in Griffith's *Judith of Bethulia*, shot in Chatsworth, California in the Spring of 1913.

* * *

Neilan met Biograph actress Elsie Bambrick while working on *Judith of Bethulia*, and his desire to join Griffith in New York was prompted by his interest in her. They were married in New Jersey in December, 1913. Neilan's mild rancor over Griffith's reply can be explained by his own generosity in dealing with fellow film associates. When Allan Dwan was fired by American in May 1913, it was Neilan who helped arrange a job for Dwan at Universal. A surviving telegram to cameraman Roy Overbaugh further illustrates Neilan's style:

NEW YORK NY NOV 21 1913 ROY OVERBAUGH
AMERICAN FILM MFG CO SANTA BARBARA CALIF
AM RETURNING TO LA WITH NEW KALEM CO WILL WORK IN NEW STUDIO NEED YOU FOR CAMERA MAN. NAME YOUR SALARY TWO MONTHS TRIP HONOLULU IN JAN WIRE ME MY EXPENSE
MARSHALL NEILAN

For the record, Overbaugh did not join Neilan at Kalem until October, 1914, after serving a stint with the short-lived Santa Barbara Motion Picture Company.

* * *

There is, of course, a certain irony in Neilan's account of Griffith's offer to buy him out of his obligation at Biograph. It is true than many Biograph players remained at the studio for some time after Griffith left. In fact, Griffith left Biograph in October 1913, and did not land with Reliance-Majestic until December. Griffith's urging Neilan to join him was almost certainly an attempt to steal the young actor-director away from the company that had passed Griffith over. At this time in his career, Neilan would not have been a major "capture", and Griffith's pursuit of Neilan suggests that initially he may have had some difficulty in persuading others to leave Biograph. In any event, Neilan did not join Griffith at Reliance-Majestic, but instead returned to Kalem. △

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Robert Birchard is a regular Contributor to this publication.

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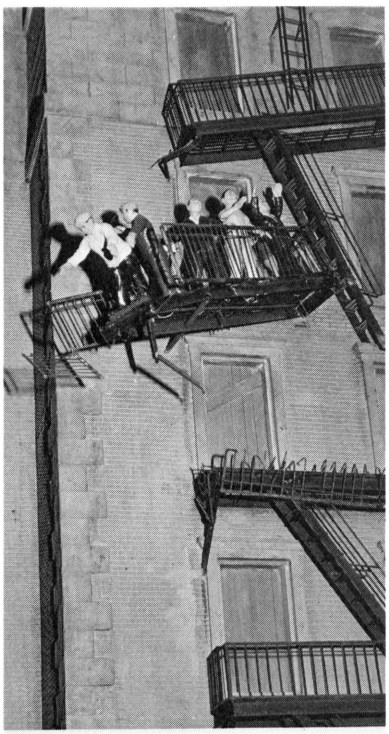

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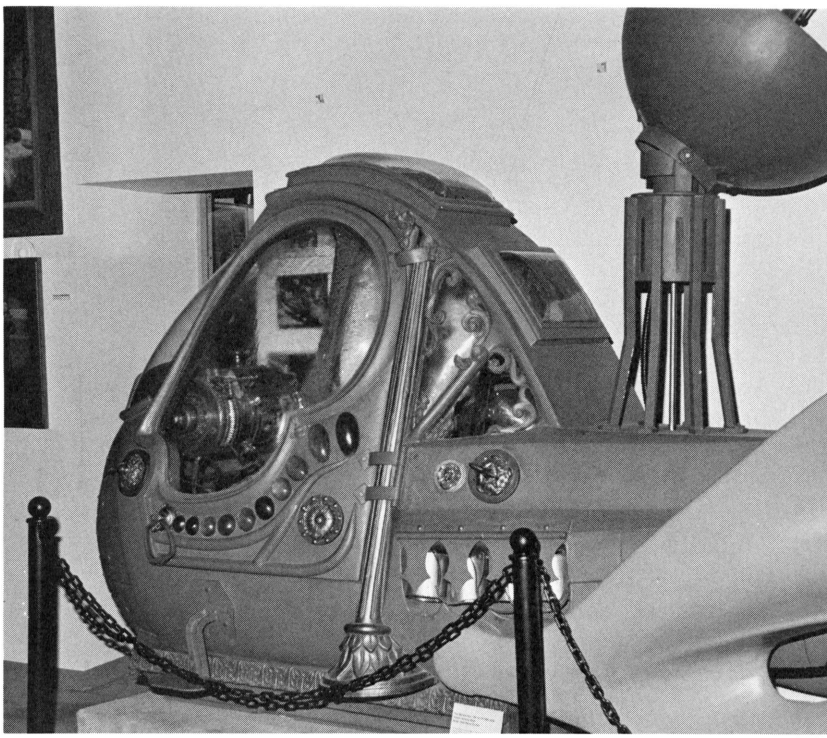

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Hollywood's Past on Display

by Mike Maginot

FOR DECADES the promise of a museum of movie history has shimmered on Hollywood's horizons. Although many dedicated film lovers and members of the industry have tried to bring the dream to life, their efforts have been frustrated.

One small group became so tired of waiting that they decided to create such a museum on their own, without the help of the official organizations. Their Hollywood Museum opened on May 20, 1984, on Hollywood Blvd., a block west of the landmark Mann's Chinese Theatre. It is now one of the few places exhibiting authentic movie memorabilia—props, models, rare printed matter, production art and John LeBold's fabulous costume collection.

Hollywood Museum has gone through some hard times. Operating costs have led the current board of directors to seek non-profit organization status. The support of businesses and individuals also is sought to supplement the costs.

The many exciting exhibits range from the days of D.W. Griffith, Theda Bara and Mary Pickford to the latest gadgetry of science-fiction films. A few are pictured here:

1.) Hedy Lamarr's costume from *Samson and Delilah* (1949) and Anne Baxter's gown from *The Ten Commandments* (1956), stand before a chariot used in *The Ten Commandments*. 2.) Building facade and models from *It's a Mad, Mad, Mad, Mad World* (1963). 3.) Time machine from *Time After Time* (1979). 4.) A sinister trio: Boris Karloff's costume from *The Black Cat* (1934), Carolyn Jones' costume from television's Addams family, and a coffin used in *Love at First Bite* (1979). 5.) A tribute to Harold Lloyd's fantastic stunt in *Safety Last* (1923) announces the museum to passersby. 6.) Two silent classics: Theda Bara's fan from *Cleopatra* (1917) and a souvenir program from *The Thief of Baghdad* (1924). 7.) A detail of Rudolph Valentino's costume from *Blood and Sand* (1922).

Mike Maginot is a free-lance photographer and writer in Los Angeles.

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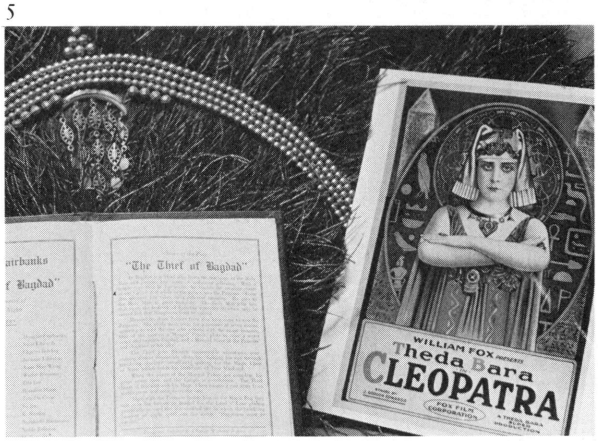

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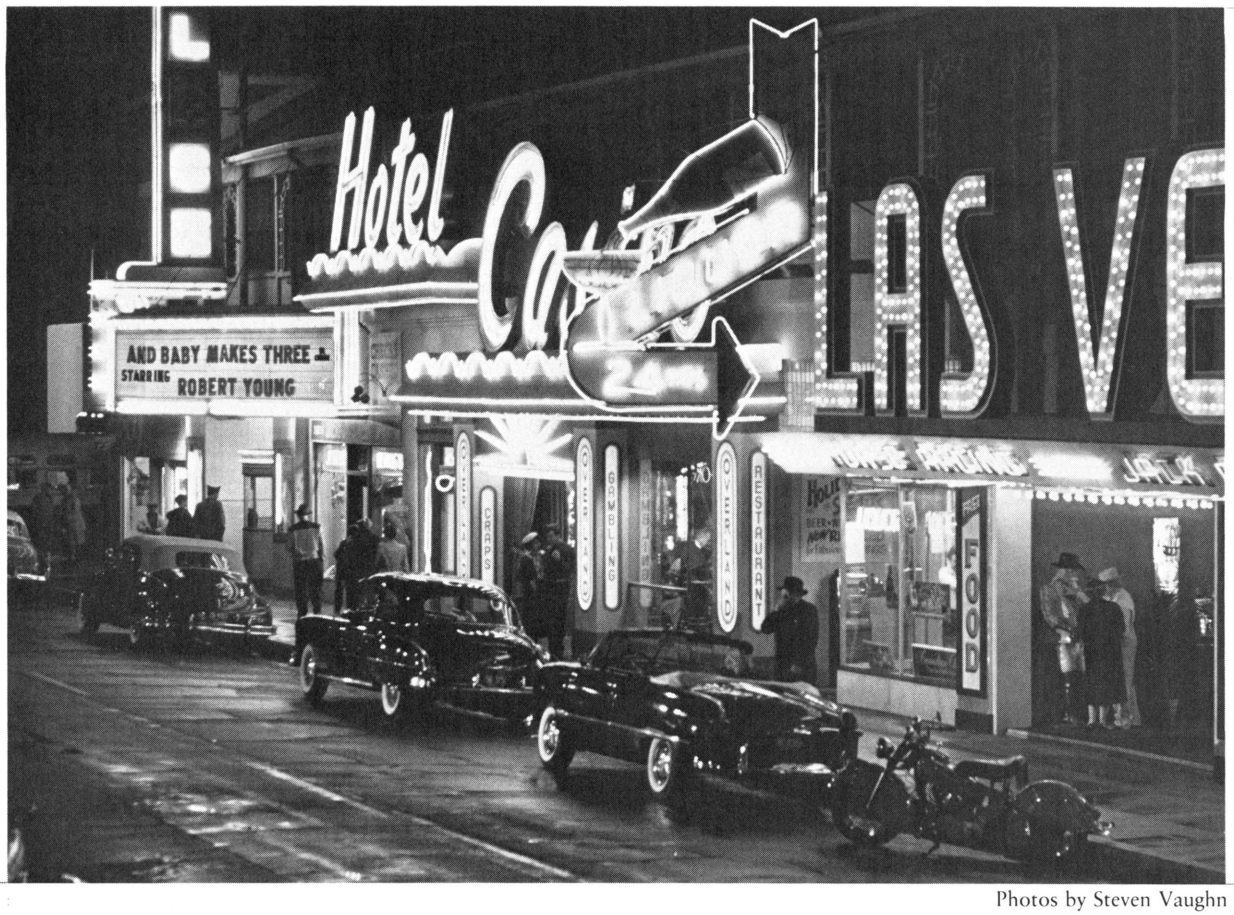


Photos by Steven Vaughn

The Harsh World of *Desert Bloom*

Produced by Columbia Pictures
Directed by Gene Corr
Director of Photography, Ray Villalobos

by Larry Harnisch

Ray Villalobos approaches cinematography with a few basic principles: Keep your work as simple and as natural as possible, be willing to take chances by trying something new and be prepared to take advantage of "happy accidents" when they occur.

"The hard part of making a film isn't technique, with lighting and f-stops," Villalobos says. "It's being creative and coping with the pressure of how fast you have to work because you're dealing with a lot of money."

He added, "I know some people who are technically oriented, but who can't get the proper mood. If you're technically expert and have no vision, technique does you no good."

As a director of photography, Villalobos sees his job as helping a director achieve his vision. "I ask the director, 'What does this scene mean to you?'" Villalobos says. "But I have to interpret what he tells me and that's where the collaboration comes in. My job is also to suggest ideas. you need a director who is open to suggestions, and most of them are because a picture is organic. Pretty soon, it lights itself. You can almost walk away because the scene tells you what to do."

Villalobos, whose father was a studio set painter, majored in art at school, but he always wanted to make films. He began by working in the studios as a laborer until he got a job delivering camera equipment. His first work behind the lens was at a title house, where he filmed credits, "a

very boring job." His next chance came at Paramount, where he worked as a second assistant, moving up to first assistant in six months. Seven years later, he became a camera operator and he made his debut as director of photography two years later with *Urban Cowboy.*

Villalobos relies heavily on his art training as a cinematographer. "As a painter, I can go into a scene and know what's going on," he said. "Composition is no problem. I know what I want, it's just a matter of getting things simply and quickly. I see film as design: Acting, lighting, each overlaps."

Villalobos' latest feature film is *Desert Bloom,* the story of a young girl's coming of age in the 1950s. The film which plays off both meanings of the phrase "nuclear family," takes place in Las Vegas, Nev., during the final weeks of 1950, and it is set against a background of impending atomic tests in the nearby Nevada desert.

Eugene Corr, who makes his feature film directing debut with *Desert Bloom,* wrote the screenplay in collaboration with his long-time associate Linda Remy, based on her upcoming, semi-autobiographical novel. Corr previously directed several documentaries and wrote the narration for *Never Cry Wolf.*

Desert Bloom is about Rose Chismore (Annabeth Gish) a 13-year-old girl who struggles to deal with her stepfather, Jack (Jon Voight), an alcoholic who runs a service station and spends his spare time listening to shortwave radio broadcasts, and her mother, Lily (JoBeth Williams), who is a compulsive gambler.

The film is also the first from the production division of Robert Redford's Sundance Institute, in collaboration with Carson Productions Group LTD.

The script is a result of Corr's participation in Sundance Institute's script development program, where he worked on the screenplay under the guidance of Waldo Salt. (The script was one of six accepted out of 500 projects that were submitted.) The institute's laboratory program gave Corr a chance to direct scenes from his script as it evolved, and he had an opportunity to see how the scenes would be treated by other directors, including Redford, who served as creative consultant on the film.

For Villalobos, the film was attractive partly because of the period in which it is set and partly because it is a story about conflict within a family.

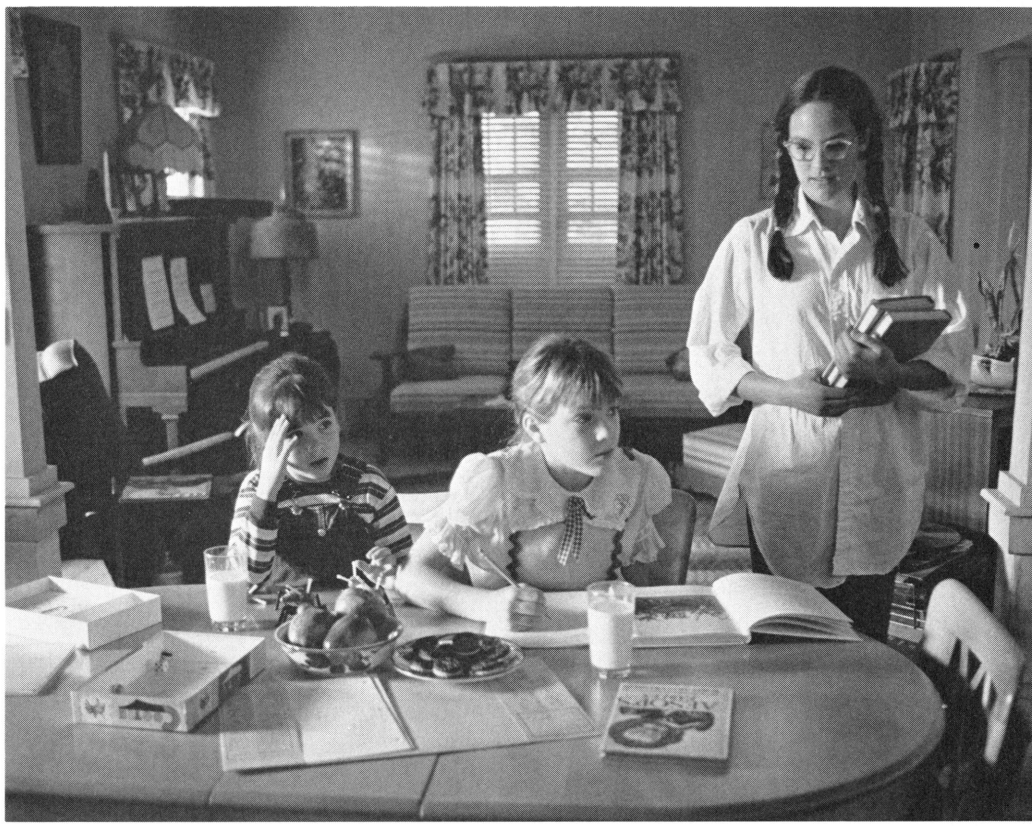
He became involved with the film a month before shooting began, in October 1984, shortly after he completed *Saving Grace.* Villalobos' visualization process began almost at once. "When I read a script, I immediately see pictures," he said. "I see the master, the close-ups, and, ideally, the lighting,"

He added, "You think of the wardrobe, what colors you want, the set, the walls, how to light things. It's really designing the show in a bigger sense."

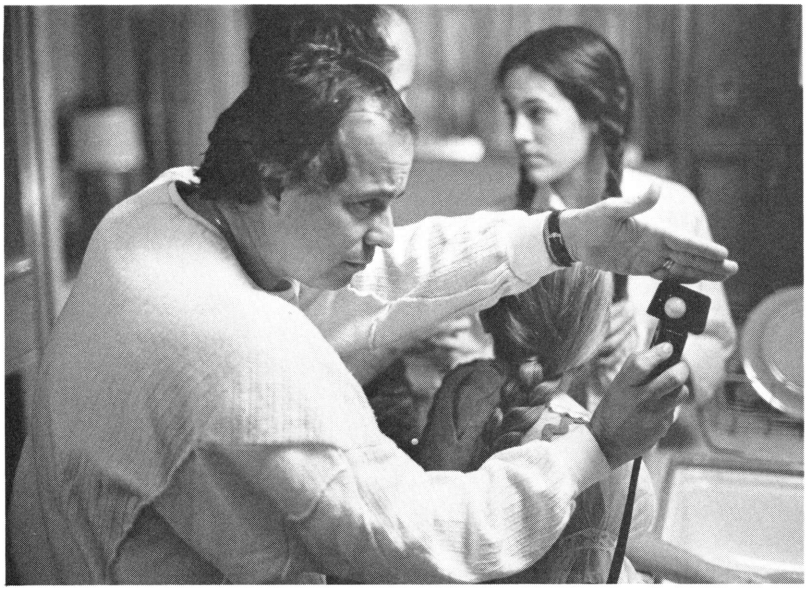
The next step was for Villalobos and Corr to visit locations in Tucson, Ariz. (where the movie was filmed from November 1984 to January 1985) that might fit what Villalobos had imagined. Sometimes the available locations were better or worse than what they had imagined, but sometimes things just disappeared. For example, one old downtown hotel was demolished between the time it was scouted as a location and the time shooting began.

About 75 percent of the film is set in the Chismore house, which was built for the film. One of the most interesting exterior locations was a one-block stretch of downtown Las Vegas which was re-created in downtown Tucson.

Because so much of the film takes place in the house, Villalobos worked closely with art director Lawrence Miller on its design. A sound stage was not available, so a 1940s vintage one-story house was built across the street from an old, established neighborhood on a large, vacant stretch of land near the Southern Pacific railroad yard. (The sound of passing trains was so common that several members of the crew



Desiree Joseph, Dusty Balcerzak and Anabeth Gish at home in Nevada desert. **Opposite page:** ***Reproduction of Las Vegas street scene shot in Arizona, complete with period autos.***



Villalobos prepares shot.

jokingly suggested that a train be written into the script.)

Villalobos' concern was to make the house as much of a character as the actors and he achieved this by using different lighting to show changes in mood and different times of day.

Spending so much time filming in the house posed other challenges besides the more obvious ones. "It's like a marriage," Villalobos said. "You're spending 12 to 14 hours a day, six days a week in a tight situation. It's like being on a submarine. You find out who can handle it and who can't."

By helping to design the house, Villalobos said he solved most of his problems. One of his main concerns was that the house have as many windows as possible which could be used as natural sources of light. "There are more windows than there are in a normal house, but no one sees the whole house so you never know," he said. The large number of windows allowed him the choice of whether to use front light, back light or three-quarters key light.

In addition to the number of windows, it was important for the house to have a long hallway that ran its entire length, from the front door to the radio room, which served as the stepfather's hideaway. The living room was furnished with pillars set slightly away from the corners of the room, providing another place for the stepfather to hide. The rooms were slightly offset from one another so there would be sightlines between them.

At every opportunity, Villalobos worked to emphasize that the story was set in the desert. "I wanted nature to be strong, with hot lighting outside that would be overexposed. The light had to impinge itself on the house, like the heat." At the same time, it was important to show that the house was being eroded by the surrounding desert. "You're working in a house at the edge of Las Vegas," he said. "The characters have put lawns in around their homes, but there's a feeling that if they were gone for a month, the desert would be back."

In choosing colors for the house, Villalobos selected a neutral palette. "I told the art director that the colors should be neutral so that I could make them brighter or darker with light," he said. "I wanted the characters to stand out, not the rooms."

Neutral colors were also important in his work with Hillary Rosenfeld, the costume designer. For example, one of the stepfather's costumes was tan slacks, a white shirt and a light brown jacket. "The people are an extension of the desert," Villalobos said. "But at the same time, you think of a good guy wearing white, like a milk man. You think he's a good guy, but he's not, so you play against that."

The period and the characters were also important in determining the decoration of the house, which was filled with junky bric-a-brac and '50s kitsch: lots of toy slot machines, little ceramic flamingos and souvenir copper ash trays from Las Vegas.

To maintain the feeling of the impinging desert, Villalobos filmed *Desert Bloom* in Kodak 5294 (ASA 400) rated at ASA 325 with normal processing by MGM. "At the lower ASA, the blacks are blacker and there is less grain," he said. "You get a better product." *Desert Bloom* was filmed with Panavision equipment in a 1.85-1 aspect ratio. Although Villalobos' set of prime lenses included a 20mm, the smallest he used regularly was a 24mm. "I don't want the house to look big," Villalobos said, adding that the house was built slightly larger than normal so that he could shoot it slightly smaller.

"I tried to evoke the feeling of the film with lights rather than filters," Villalobos said. "I grew up in the '50s and I didn't see everyone through a warm glow." Instead, he occasionally used a black net, a double black net or a No. 1 or No. 2 low contrast filter. "What I use is so subtle it won't even be noticed," he said.

Villalobos' approach to lighting is characteristically simple. One of his cardinal principles of lighting is to be simple and natural because, as he says, "Nature is simple: The sun."

He used a fairly small package of lights on the picture, ranging from two 12K HMIs to flashlights, depending on the needs of the scene. For Villalobos, one of the highest compliments is for the finished film to look as though it was lit by natural light alone.

The problem of filming in the house was compounded because the shooting schedule often called for night-time interiors to be filmed in the daytime and for daytime interiors to be filmed at

night. To deal with this, Villalobos blocked off the windows to simulate night-time and simulated daylight by shining a 12K HMI into the house through a window. Sometimes there was diffusion material over the windows, but at other times the windows were dirty enough that no diffusion material was required.

How does Villalobos go about lighting a scene? At first, even he isn't always certain how he works.

"Sometimes I stand back and say 'how did I do all this?'" Villalobos said. "In lighting, you're just solving problems and you end up with this forest of flags and lights that you could never have thought up in advance. It just grows."

He added, "When I light, first of all, I think about the scene. You start from reality, the natural sources of light, and then adjust. Sometimes you cheat, but no one knows you cheat."

For example, in a night interior shot where Rose and her flamboyant Aunt Star (played by Ellen Barkin) are sitting in bed, Villalobos began with the light from a small lamp on a table next to the bed.

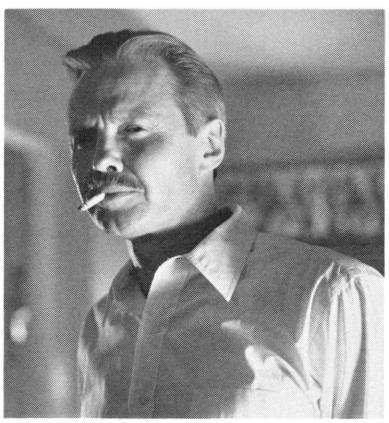
The intensity of the table lamp was turned down and the cheating began. Out of frame, just to the left of the table lamp, Villalobos placed a photoflood shrouded with cardboard. A sheet of tracing paper was placed across the front of the shroud to soften the light and flags were placed to keep light off the areas where light from the table lamp wouldn't have fallen—for example on a shelf beneath the table. Behind the camera, about seven feet from the foot of the bed, was another small fill light. Its barn doors were almost closed so that it emitted only a sliver of light, which was bounced off a card on the ceiling (or where the ceiling would have been if the house had one). Another flag kept light off the actresses' faces, but light was allowed to slightly illuminate the bed spread. "Sometimes you wonder why you light at all when you see so many flags," Villalobos said. "It's just a matter of getting the light where you want it."

Reality was also the inspiration for the lighting in a scene in the living room in which the stepfather confronts Rose and accuses her of taking some tubes out of his shortwave radio.

In one of those "happy accidents," as Corr rehearsed the scene, Villalobos noticed how the late afternoon sun was beating down through the front window, shining up at an angle from the floor and from an ottoman to illuminate the entire living room.

"I said 'I've never done it before, but I wonder if I can bounce the light up from the floor'," Villalobos said. "It gives a strange light, but will it fit the scene, will it be too much? Sometimes you can make something look too good, so I put a flaw in it to make it human'."

To film the scene, Villalobos put a 12K HMI outside and shone it through the living room window, augmenting it only with whatever natural light was available as fill.



Voight and his daughter (Gish) in a confrontation scene. **Left:** ***Voight, with light from below emphasizing his character interpretation.***

The dailies, which are always a "shot in the arm" for Villalobos, showed that lighting worked. The top of the ottoman was burned out completely by the bright light and Rose's legs were slightly burned out as she walked in front of the ottoman—in keeping with the feeling of the impinging desert light. Lighting the stepfather's face from below gave it a touch of the demonic, a feeling that was appropriate for the scene.

Director Gene Corr confers with Villalobos (center). Camera operator Steve Bridge is at left adjusting a chair.

"I tried to really make it look like what the sun does," Villalobos said. "Sometimes you have to figure if you're doing too much. What you do must fit the situation."

The filming of the confrontation scene shows another challenge in filmmaking. After rehearsing the scene in the living room several times, Corr and the actors left to go over the scene while Villalobos set up the camera and began lighting the set. They returned, but Corr now felt the scene wasn't working and wanted to move it, first to a series of shots down the hallway and then he suggested playing it in the dining room.

As the ever-present clock kept ticking, the scene was moved to the dining room for more rehearsals. Soon, the afternoon light was lost, and the entire scene was postponed until the following day.

Sometimes, simply changing the camera angle can alter a scene tremendously. The original plan had been to film a nightmare sequence, in which the stepfather thinks he's back in World War II, in the radio room.

The scene came late in the shooting schedule and as a result, Villalobos had to work even harder to overcome some of the crew members' natural tendency to begin worrying about their next jobs, slighting the task at hand.

"The scene was pretty important and they wanted to shoot it quickly," he said. "Towards the end of the shooting schedule, you have to dig in and keep people on the ball."

Instead of shooting the scene in the radio room, Villalobos turned the camera 180 degrees so that shot included the entire hallway to the front door. Lighting the scene came as something of a risk as he used very little light, only a few 750s on the hallway ceiling and another small light in the adjoining kitchen, which was standing in for a bedroom. In fact, there was so little light that Villalobos couldn't get a reading from his light meter, so he simply used his eye to judge the exposure.

The lack of light is an important key to Villalobos' design. He said, "Negative space is important. It's what you don't say and what you don't light that makes it interesting." He admits that using so little light was a gamble—an expensive one—but that it's important to take chances. "If everyone lit a scene the same way, it would be boring," he said "I always push myself to be better, to be more true to the scene," Villalobos said. "You have to take a chance."

The scene begins with a close-up of the stepfather, who wanders down the hallway until he is silhouetted full figure against the light from the floor. He comes back towards the camera and crouches down at the doorway to the kitchen. The mother hears him and turns on the kitchen light, hitting the stepfather's face with brilliant sidelight. As the mother comforts the stepfather, the camera slowly creeps in until the characters are in a two-shot.

Camera moves, incidentally, are something Villalobos tries to use only when they are necessary for the story. "I see cameras moving as being self-conscious," he said. "You should only move the camera when it adds something. You don't want to draw attention to it."

For one sequence—a "happy divorce" party for the aunt—Villalobos made great use of smoke, a technique he also depended on for *Urban Cowboy.*

"I like smoke because it gives you washes of color," he said. "It gives depth, the way a painter uses washes. It's better than a filter."

During some of the filming of the party scenes, it seemed as if the set was completely obscured by smoke, but Villalobos said that what the eye sees differs from what will appear on the screen.

"Most people don't know how to use smoke properly," he said. "If you overexpose it, the smoke goes white. If you underexpose it, the smoke goes dark. When people see it on the set, they think it's a lot of smoke, but it looks like half as much on the screen."

In using smoke, Villalobos said that it was important to fill every room in the house with smoke, not just the ones where the action is taking place. He compared smoke to a liquid that

would flow from one room to another unless it was distributed throughout the house. "You try to make the smoke even, so it doesn't look like *The Towering Inferno*," he said. "And timing is important. You've got to go for it when it's ready or it dissipates."

But the use of smoke isn't only for effect. Villalobos relies on observation (he is continually looking for interesting lighting effects and composition regardless of whether he's working) to use smoke realistically. "People smoke at a party and after awhile a haze builds up," he said. "As the people thin out, the smoke thins out, so the lack of smoke later in the sequence adds a time element."

Sometimes, simulating reality is more difficult, particularly when it becomes expensive. For the Las Vegas night-time scenes, only one block was dressed in period. "It was hard shooting the Las Vegas part because we only had one block and I had to make it look bigger," Villalobos said. "I cheated by making the next block dark with just some bright lights. I had to make it interesting so you wouldn't think it was just one block."

One of the more difficult night-time scenes was one in which Rose runs away from home through the desert, making it even more challenging for Villalobos to imitate reality.

"In the city, you have lights from cars, lights from streets," he said. "At night, the desert is black. All you have is moonlight."

Villalobos' solution was to make his own moon. He placed two 12K HMIs inside a pyramid-shaped frame wrapped with muslin and hung the pyramid from the top of a 150-foot crane. "It made a big glowing light," he said.

Villalobos underexposed the film slightly and put a small amount of fill light on the actors. Another benefit of using the "moonlight" was that the lighting went quickly because the crane could simply be moved from one position to another.

"How I solved the problem was to make the scene look real," Villalobos said. "That's what I mean by natural sources of light."

In discussing individual problems, Villalobos again emphasized that the challenge in filmmaking isn't technical—although technique is essential as much as it is being creative. To Villalobos, technique is something you learn and then forget about so you can create the proper mood for a film.

"Once you plug into a movie, it lights itself," he says. "In one way, you have to design it, yet be loose enough so that if something interesting happens you can go with it."

He adds, "It's also endurance. You have to be standing on your feet at the end of the movie. The job would be easy if you had all the time in the world, but it's a high pressure job. You've got to know what works and keep your standards as high as possible."

But for Villalobos, there is one more essential ingredient—a sense of humor.

"Something will be so ridiculous that you have to sit back and laugh," he said. "It bothers me when people complain. They knew it was going to be hard when they started. So you turn it into an experience. It's really your outlook. Don't take yourself so seriously, it's only a movie." △

Larry Harnish is a writer for the Arizona Star *in Tucson.*

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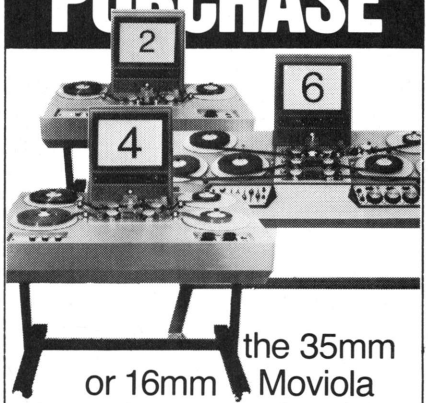

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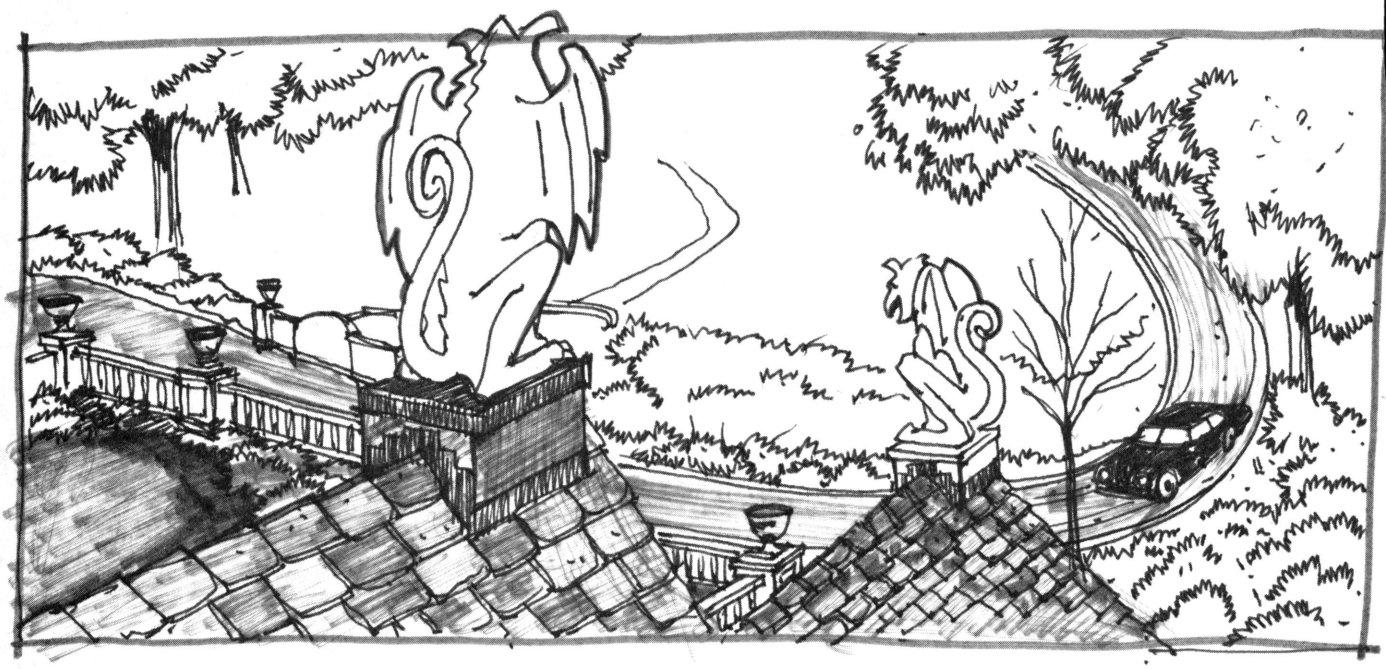


***A storyboard sketch for* Clue.**

Clue® is More Than a Game

by Saul Kahan and George Turner

Produced by Debra Hill
Directed by Jonathan Lynn
Director of Photography, Victor J. Kemper, ASC

Director of photography Victor J. Kemper, ASC, has described *Clue* as "an ensemble piece." By that he means that there was a strong rapport among the artists, technicians, authors, director and performers. "They worked together beautifully. There was no temperament, nobody claimed they had to have something because somebody else did. I really have to hand it to the whole group: they were great."

Kemper stated that one reason *Clue* went so smoothly is that it was "very well prepared and very well rehearsed. Jonathan Lynn, the director, had extensive rehearsals before we started on a sequence and the actors all knew their lines and they always remembered from rehearsals where they had to be." Even the cinematographer – usually the last person to be hired – had three weeks preparation time before the 12 week shooting schedule began.

"We seldom went beyond three takes," Kemper noted. "We had storyboards for most of the action scenes. Don't misconstrue 'action' – it's not car crashes or stunts, just a lot of moving around by the actors. Those were boarded because when you have actors doing 360° moves in a set, camera directions start getting tough to figure, and storyboards are a great guide in helping you maintain directions."

Clue, a Paramount release is almost entirely a one-set picture, a mystery-comedy in which, for mysterious reasons, a bizarre group of characters are gathered in a long-deserted mansion somewhere on the Eastern seaboard. Its basis is a parlor game which has been popular in England and the United States since the late 1940s. The players include Eileen Brennan, Tim Curry, Madeline Kahn, Christopher Lloyd, Michael McKean, Martin Mull, Lesley Ann Warren, Colleen Camp, Lee Ving and Bill Henderson. The picture was produced by Debra Hill and co-written by Jonathan Lynn and John Landis. Executive producers were Peter Guber, Jon Peters, John Landis and George Folsey Jr.

As in the Parker Brothers game, the action occurs mostly in (from the right, as you enter the mansion) the study, the library, the billiards room, the conservatory, the ballroom, the kitchen, the dining room, and the lounge. For movie purposes the hallway was widened and elongated to run the length of the mansion. It connects all the rooms and thus facilitates the search for the killer and a lot of frantic running around. The conservatory of the movie is a greenhouse, not a music room as on the game board.

The impossibility of finding a real residence with the same rooms and layout as those of the game necessitated the design and construction of an American Gothic mansion – one of the largest and most lavish Hollywood sets in years. On Stage 18 at Paramount Studios, the beautiful but ominous house was created by veteran production designer John Lloyd on a grand scale.

Lloyd has brought an impressive variety of movie environments into being during his 38 years in the movie business. His recent work as production designer includes the recent *Maxie* and the forthcoming *Big Trouble in Little China*, for which he designed huge sets representing San Francisco's Chinatown. In his early years in the Republic art department he worked on *The Quiet Man* and two other John Ford productions, as well as *Wake of the Red Witch* and *The Sands Of Iwo Jima*. He was art director for the first five television seasons of "Alfred Hitchcock Presents" and received an Emmy for the "Checkmate" series. He was production designer for *Day of the Locust*, *Animal House*, *The Blues Brothers*, *Winning*, *The Thing*, *Prisoner of Zenda* and others. Lonnie, his daughter, is a well-known production illustrator and storyboard artist.

Photographs by Robbie Robinson and Bonnie Schiffman

The guests gather in the hall: Leslie Ann Warren, Martin Mull, Madeline Kahn, Michael McKean, Tim Curry (the butler), Eileen Brennan, and Christopher Lloyd. Below: Director Jonathan Lynn, left, and director of photography Victor Kemper, standing between Madeline Kahn and Christopher Lloyd, prepare to shoot a scene in the dining room.

"I got the biggest stage I could find and tried to fill it," Lloyd said of *Clue*. This meant Paramount's gigantic Stage 18, where Josef Von Sternberg had the desert recreated for *Morocco* in 1930, where Alfred Hitchcock shot the entirety of *Rear Window* in 1954, and where Gloria Swanson came to visit Cecil B. DeMille at work in the classic *Sunset Boulevard* in 1950. Lloyd was assigned an office upstairs across the street, in the former Writers Building

In the garden in front of the "outdoor" portion of the set, production designer John Lloyd, right, shows the original miniature prototype to Christopher Lloyd.

where William Holden and Nancy Olson worked on their ill-fated baseball script in *Sunset Boulevard*. "If it weren't all night stuff I wouldn't have done it that way," he added.

Because the mansion is seen so much and is so involved in the story, it was possibly the most detailed and sturdily built house ever constructed for a film. We're never told who owns the house, but, Lloyd said, "It must have been a very peculiar person.

"The set was solid, with real paving, real concrete, real oak floors and walls, and heavy woodwork," he explained. "It 'grew' from the design of the game and was built to take a real beating. Making a picture like this is rough on a set; if we'd shot it in a real house we'd still be paying for it. And this house was more detailed than usual. You reach a point of sheer terror trying to figure what to do with such a mess, with everybody going different directions. There are ten million things and they all have to fit together, but once you get it in your head, it's there and you notice anything that's out of place."

The front exterior of the mansion was on Stage 18 as well. The facade, with its impressively realistic brick walls, open onto the gardened driveway, where the guests motor in, driving around a gargoyle-crested fountain. At least 40 feet above, an elaborate waterworks system provides a wide, realistic downpour for the ominous night of the fateful dinner party. The water was spun as it emerged, making it fall convincingly into the scene, where it was whipped by wind machines.

Large stone gargoyles (actually, Lloyd revealed, they were carved from styrofoam) at the entrance establish a sinister animal *motif* which is echoed throughout the mansion, from the stuffed trophies in the billiards room and the large case of birds at the rear of the hallway, to a cobra floor lamp in the lounge and in fine embellishments in the furniture and woodwork. The front facade was designed to match an actual Pasadena mansion where the filmmakers went on location to make establishing shots of the arrivals of the suspects.

To provide visual variety within the confines of the film's main setting, each room was designed with a different ambience.

The furniture and accessories are all 18th and 19th Century antiques. They were selected from studio prop departments, a deluxe rental organization called The Antiquarian Guild, and from real mansions, including Teddy Roosevelt's home in upstate New York, the Mark Hopkins Estate in San Francisco, and a Hudson Valley home, which

Rain and wind were produced to order on Stage 18. Note wind machine at right. The actor is Lee Ving.

Lloyd described as "one of the great U.S. mansions."

The Renaissance Revival decor features soft fabric walls throughout and oil paintings of U.S. presidents. The massive stairway is festooned with three kinds of gargoyles, of which, Lloyd said, "We just made them up – the designs aren't significant of any style."

The dining room, a copy of a room in the forementioned Hudson River Valley mansion, has a large Victorian chandelier, a long oval table made of cherrywood, pale green damask wallpaper, and Lenox china worth more than $1,700 per place setting.

The lounge contains a needlepoint-covered Empire couch, a Tiffany lamp, and an Obusson rug valued at over $30,000.

The great hallway has a beautifully detailed parquet floor, a dinner gong, and a case of stuffed birds. The area is dominated by a 20x20-ft. Victorian landscape painting retrieved from the Paramount prop department. "The big chandelier," Lloyd pointed out, "is hand-made over a real antique. We made it much larger."

The study is warmed by light orange love sofas and features an ornate weapons cabinet, a pewter fireplace, and a desk with a bookstand that belonged to Theodore Roosevelt.

The library contains an antique English fireplace, a Persian rug, and a colored glass eagle lamp by Hendell which is valued at $9,000.

The billiards room has red velvet wall coverings with several stuffed animal heads and a bar. The pool table, featuring mother-of-pearl inlaid railings, is one of the first Brunswicks ever made, circa 1875. "It's valued at $14,500," Lloyd said.

The conservatory, unlike the rest of the main floor, was put in an unkempt and foreboding condition, with dired plants and stained windows.

The light and airy kitchen boasts a decorative skylight above walls and floors of real Victorian white hexagonal tile. The spacious room has a work island, a walk-in food locker and an antique Dangler stove. It contains Twenties cookware and props from the Fifties, including the period trademarks of Bon Ami cleanser, Morton's Salt, and the truly classic Coca Cola.

Next door, on Stage 17, Lloyd's artisans added seven new rooms to the scene of the crime – two upstairs bedrooms, an attic, a basement/wine cellar, a children's room, a bathroom with shower, and a dressing room. While the main floor was beautifully restored for the dinner party, the other floors – where the characters pair up to search for the murderer – are dark and decrepit. "The idea," Lloyd noted, "is that the upstairs 'goes' faster. It's all dusty and webby, walls peeling – sort of a Charles Addams place."

The great central hall is as solidly built as the real thing.* Right: *Kemper, on stairway, confers with his gaffer, Earl Gilbert.

Only one room wasn't built for the movie. The ballroom is a real one in a Pasadena mansion. Lloyd said, "I didn't put the ballroom in it because it was for only one day's work and would have cost about $100,000. I try to spend the money where it shows."

Clue is the film directing debut of England's Jonathan Lynn, who brings to Hollywood a wealth of experience and success as a screenwriter, stage director-producer, actor, and author. He wrote BBC-TV's popular "Yes, Minister" show, which won the Best Comedy Series award from the British Academy of Film and Television Arts for an unprecedented three consecutive years. His book, "The Complete Yes, Minister," was on the London *Times* best-seller list for 37 weeks this year. Pleasant, gentle and very British, Lynn gave us his view of what *Clue* would be like:

"Terror is the mainspring of the comedy. *Clue* contains all the classic elements of the country house murder mystery, which was virtually invented by Agatha Christie. You couldn't do that *genre* seriously today, so this is a comedy. But it's not a parody or a spoof. The terror is real. It's what happens to you on the worst day of your life."

The nature of the film presented many challenges to the cinematographer.

"I tried to do some interesting, moody stuff with *Clue* because by its very nature as a drama it requires that," Kemper said. "But it really is a comedy – there's no pretense in that movie of being a drama, but we treated it, visually, more like a drama, and I think we got a lot of fun out of it. We were on the big set all the time – 12 weeks – except for three days at Pasadena."

Most of the shots of the "exterior" were made in pouring rain. "That set was entirely rainproof," Kemper pointed out. "It really does look like an exterior when you see it. It was a tough order for the designer and the construction people to get that drainage work in so that we weren't flooded. There's something under that stage – a storage area or warehouse – so we had to be particularly careful.

"Rain has to be backlit, ideally; not-so-ideally it can be side-backlit. Sometimes it's just impossible to get absolute backlight on rain – maybe the building gets in the way, for example. Then we settle for cross-backlighting. That's the only place I used really big light units on this show; I used 10Ks because the area was so large."

Kemper utilized unusually low light levels for the interiors for various reasons. "Inside I used mostly inky-dinks, which are now called Mini-Moles; tweenies, which is a new larger size lamp by Mole, – they look like the old keglights with the ventilating ribs all around; and baby juniors. Because of its size, I really intended to light the big hallway from up high, but when the set was completed we found five large beams crossing the ceiling, which made it impossible

because the beams interrupted the light and put shadows where we didn't want them. So, we had to resort to dropping good old sleds down along the walls. There were very expensive paintings on the walls and we had to be careful not to scratch or tear or burn them. When we hung the sleds, we had to position them between the paintings, which wasn't always the ideal place for the lamps. When that happened, we switched to a trapeze to hang the lamp away from the wall, where it didn't touch the painting, and then we had to tie it off. This was accomplished by tying lines to the trapeze to keep the lamp clear of the paintings.

"We really mixed a lot of modern lighting and some of the new units with some of the very old units. We had movable walls in the rooms off the main hallway, but none in the main hall. However, the hall was so large and the designer so aware of the shots we needed that he did give us plenty of room in that area of the set. I had no real problems in placing the camera or lighting except for the time consumed by the method of hanging stuff where, ordinarily, I'd work from the wall with a smaller unit. The smaller units didn't have the spread in that large hall to provide adequate coverage. I resorted to larger ones.

The nature of the decor made it necessary to consider the lighting of the actors and that of the walls as separate entities. "The particular problem in that set was the dark wood – dark walls, dark wooden floor, subtle areas of the walls that were painted a rather dark color and very well aged – the amount of light *that* soaked up was tremendous," Kemper explained. "The problem, then, was to light the walls separately from the actors, because there would be no balance otherwise. It took me a few days to solve that; I was not totally happy with my first couple of days' dailies and it took me a while to catch on to just how much light I needed. The front entranceway was *black marble* trimmed with dark stained wood, and to get the details to show took a tremendous amount of light. We had to be very careful where we placed each lamp since we had very little area to hide lights and keep them out of camera, so that was a lot of fun. It was a big problem that I think we solved well.

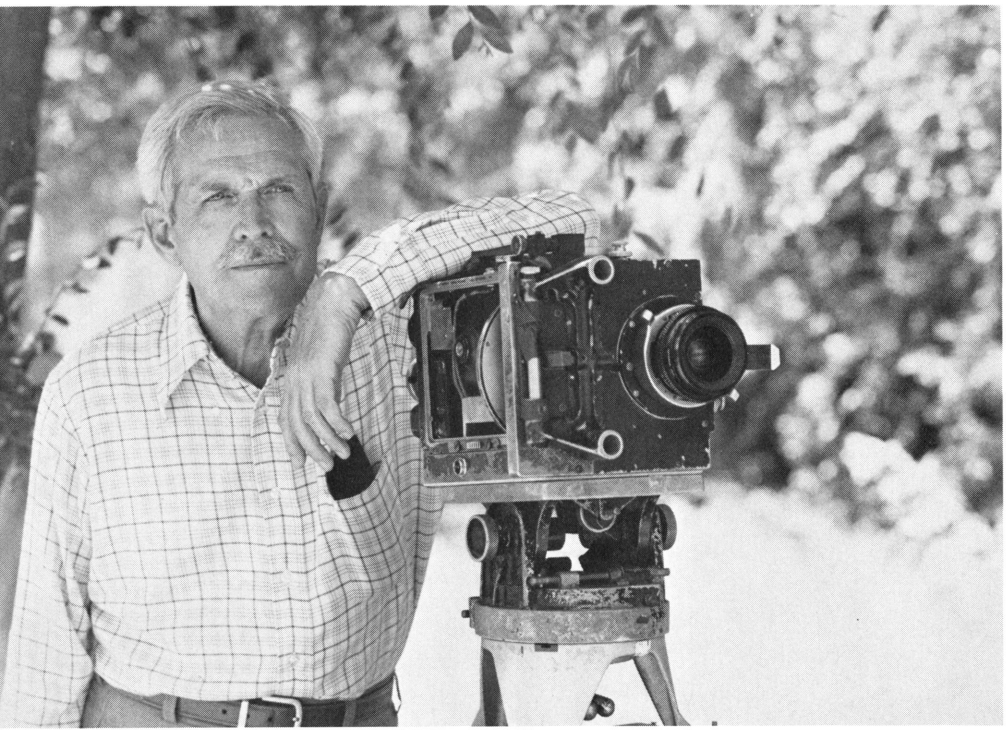
The beleaguered guests suspect that, just this once, the butler may have done it.

"We used one Panaflex camera throughout, except for a few stunts or difficult action scenes, where the actors might be running around or bumping into each other. We didn't want to risk them getting hurt or ask them to do such action more than once, so we used multiple cameras in those instances. We used prime lenses mostly, to take advantage of both the fast Kodak 5294 film and the speed that wide apertures provide. This combination allows working with a minimum of light. Otherwise, the sets would have become very hot."

The light levels maintained during *Clue* seem remarkably low to anyone who remembers the amount of light with which sets were flooded only a few years ago. "My *high* footcandle level on that set was 15, and our average was 10 to 12. My low light level was about four, depending on the scene or what room I was in and not including the times when the lights were out. In the hall, because of the dark wood, I had to build it up to about 15. In some of the other rooms, where we had a little texture and a lighter color, I could get away with a lower light level.

"I also felt that it helped the mystery look to not have too much depth of field. I tried to keep the background stuff and the mysterious things a *little bit* out of focus, so that if there was a clue happening back there, the audience would never be sure quite what the clue was or if it, in fact, happened. But for the mystery-philes who are going to go back and look at it to see if the clues were accurate, they'll find that they're there, all right. This was something the director and I contrived in pre-production, not to cheat the audience but, on the other hand, not to give them so much that they can really figure it out."

The shallow focus style was followed except for a few scenes, Kemper said. "These were some extremely wide comedy shots where I wanted depth be-



Albert Whitlock, artist and special effects supervisor extraordinary, on location in Pasadena.

cause people were moving from one end of the room to the other or we'd have a group in the foreground and a group in the background and we wanted the audience to see everything. In these cases I tried to build up the light for a greater depth of field.

"My average stop ran between fl.8 and f.2.8, with a few exceptions. In the areas where the lights were out in a room – where they'd go in looking for something – we played it very low, sometimes at fl.4 with three to four footcandles, which would be backlighting with very little or no fill. I seldom resorted to fill in these scenes."

Only sparing use was made of the usual "spooky house" cliches, such as exaggerated shadows and eccentric camera angles. "I didn't overdo the shadows because it's such an overused gag, except where it really felt right," Kemper remarked. "It also turned out that it added some humor to the shot as well. We didn't do much angling of the camera, but there are some very high shots, looking straight down. Shooting through the chandelier was typical of the period and we wanted to include that – it was pre-planned. And we did some low angle shots where the lens was actually on the floor, shooting across a set. We didn't do many low shots shooting up at people – Hitchock used that a lot, shooting up at faces, right up a nostril! We did use low angles where we wanted scenes to be shot in their entirety, taking in a whole room, or where the camera might be in one room shooting over something and seeing all the actors beyond."

It had been planned that one shot would be done in a technique James Whale used in the early *Frankenstein* pictures, in which the camera would follow a character from room to room. "One of our sets was actually designed for that," Kemper recalled. "We had a moving wall and we followed the butler in the dark from one room to another. He went through three or four doors, the last door being the one we wanted to dolly through. That would be the sliding wall. In the end we did it with a cut, and the reason was that in the darkness we didn't see enough detail to make it work.

"So, unfortunately, that wall became a waste. It was large, well hung, and it worked beautifully, but it didn't work *visually* for us. It was a shot that in preproduction we really wanted, that we thought we couldn't be without. There we went, spending all the money for design and construction and then not using it, but, unfortunately, that's typical of our business."

The camera was dolly-mounted during most of the production. "There's a lot of movement in this movie, and I think that's part of the fun of the thing," Kemper stated. "If the camera isn't moving the characters are. We did one shot with a Panaglide of an entrance of one of the characters, and it was a very good shot. However, I didn't like the look of it at the end. It was the first shooting day and I didn't like what I did, so I begged the producer for time to reshoot it. When we reshot the scene, instead of using the Panaglide we used the dolly with a five-to-one zoom, and as a result not only did we get the same movement but we got a bigger range of focal length so that we could get closer at the end. It was the character's introductory shot. As the door opened, we dollied toward the door and also zoomed in, so we wound up getting a very full head shot of the character which we couldn't get with the Panaglide because we couldn't get close enough with the wide lens."

The fact that the house was filled with a great variety of picturesque practical lamps presented unusual lighting situations. "Throughout the film I used gels on almost every lamp when practical lights were on, because we played the practical lamps," Kemper said. "With the high-speed film, practical lamps add a good deal of fill to a room and sometimes they become key where you need it. Incandescent lamps burn very orange, down around the 2,000 to 3,000 degrees Kelvin, so I used the 800 series of lens gels, the 805 being the one that I find matches the incandescent light best. Whenever we shot a scene where incandescent lights are the source, or the only apparent light in the room, I always added the

gels to my lamps so we'd have an easy time correcting the skin tones to match the rest of the set. It works very well.

"There are a few scenes in the billiards room, which was a beautiful place with dark red velvet walls, a beautiful antique Brunswick table, and a dark wood bar. The only apparent source of light in the room is the light over the pool table. That presented one hell of a challenge, to keep the look of the room with the light source only over the pool table, and see all the actors' faces, yet have enough light on that dark wood so that it would read like dark wood instead of black. I think we pulled that off quite well, just by hiding lamps wherever we could. What it did, of course, was restrict the amount of camera movement. When you hide a lamp behind a very thin column and then you move the camera, the lamp is exposed. That was tough going, but it was fun – and we were able to make the camera moves in spite of the self-imposed traps.

"The kitchen was the only bright set in the entire movie. We kept it brightly lit for contrast, for some variety. The dining room had that beautiful chandelier which was also the only apparent source of light, and dark green fabric on the wall. We had a couple of those old fringed lamps, and I tried to get the fringe pattern to read. To accomplish that we used clear practical bulbs – not frosted – which was like shooting with an open eye lamp on the stage. The bulb element became a pinpoint source as a result and cast a very hard shadow, so that by putting a 100 watt lamp in the lampshade we got very well projected patterns of the fringe on the wall and on the faces of the actors. In one case, where the actor bumped the lamp, the fringe shook back and forth, creating a very interesting effect. I didn't think we could pull it off on the dark wood, but it worked; granted, the aperture was wide open on the lens, but the gag worked."

As they should be in any traditional mansion mystery yarn, rain and lightning were critical to the prevailing atmosphere of the show. Kemper emphasized the contribution of the special effects coordinator: "He did a great job. His name is Cal Acord, and he made the best indoor-outdoor rain I ever saw. He used a new rotating spray that spun the rain out high, so that by the time it started to fall it was already falling vertically. And the wind was all going the same direction and it made a good line. The rain we did on the set for the outdoor scenes required the same precautions for the camera as though we were shooting outdoors. We had to put a tent over the camera. Because of the wind, water was blowing on everybody and we needed rain gear, boots. My gaffer had two lightning machines which he made that were kind of like the old scissors machines. He has a welding transformer for each and a big welder transformer which he uses to generate the output, then he touches those two carbons to create the arc."

Putting the rain effects on the windows inside was difficult in that the set was built almost to the walls of the stage, leaving little room to light the rain from behind. "There were windows in every room and they were big windows," Kemper said. "Another problem is that when lighting rain at night when the rain's outside and you're inside is that the backlighting has to shine through the window, and then it gets all over your set. We tried backlighting it from a very high angle, but that gave us very hot edges on the mullions and frames of the window. We covered that by using

Night lighting at the mansion "exterior."* Below: *The butler finds a mysterious key.

Top: ***The maid, Colleen Camp, adroitly steals a scene.*** **Center:** ***The butler oversteps his bounds.*** **Below:** ***Mysterious gifts for the guests only add to their unease.***

black tape on the outside of the glass to keep the light off the little ledges on each of the mullions that went across. All the windows had to be spotlessly clean for night rain, because with all the light I needed, any piece of dirt lit up brightly. When we first came on the set the windows were filthy, as usual; it looked like daylight, like shooting through a piece of frosted glass or tracing paper. We solved these problems a room at a time. A standby painter would come in along with craft service and props. They'd clean the windows, and it was a big job. We solved it by being spotlessly clean and keeping our rain light very high.

"We had one very small window where we wanted to see the rain, and it was virtually impossible to get a light in the right position, but with lightning machines placed on each side, we got enough reflected blue lightning that it actually read in the rain for us."

Kemper acknowledged that he enjoyed photographing the unusually interesting group of characters assembled in the old house, particularly the women. "They all seemed to latch onto fine characterizations. I think they came to the film knowing they were going to enjoy it. I tried to keep the ladies glamorous looking despite the fact that we weren't playing the film as such – it's not a glamour film, not a love story, but we did want them to look beautiful in the old-fashioned way. I don't know anybody that doesn't like to see a beautiful woman on the screen. Madeline Kahn has a very nice face and she wore a black wig with a black dress, and when she arrived in the story she wore a black hat with a black veil. This was the first time in my career – which is now 40 films – that I ever had the problem of a white face totally surrounded by black. It was very tricky to get the costume to show and not overlight her face and still make her look very beautiful.

"Christopher Lloyd was fun. He wears very large glasses,

which presented an additional problem of hiding light reflections. He was very cooperative: he would raise the ear pieces and tilt them down so it would minimize the reflections from the lamps.

"The upstairs rooms, which were built on the other stage, we shot in – believe it or not – four days. When the characters would go to search the house, they'd split up and go looking in those rooms. It would have been dull if we'd stayed in the main part of the house all the time.

"We did have one interior on location: the ballroom, which is in a real house in Pasadena, the same location where we shot Whitlock's plates. I said *we*, but *we* didn't shoot that. Whitlock shot Whitlock's stuff. He brings his own cameras and they set them up. They don't trust the movements on the new cameras, no matter how good the steadiness tests claim they are. They wouldn't use an Arri or a Panaflex, they wouldn't use anybody's camera but an old Mitchell. For one of the mattes they brought out a VistaVision camera, and you don't see many of those anymore. The reason for the large format is to provide room to move the matte around and have the extra latitude to do a pan shot."

Whitlock is, of course, Albert Whitlock, the celebrated matte artist and special visual effects director, whose work is evident in many of Alfred Hitchcock's films (including *The Birds*, and his Oscar winners, *Earthquake* and *Hindenburg*. The British-born artist retired recently from his position as visual effects director at Universal.

"Even though we had the outside of the house on the stage, we wanted to show the whole place," Kemper explained. "There is no such entire dwelling, so Al Whitlock came out of retirement for us. I've worked with him before over the years, but somehow this was even more fun because he is retired and wasn't as intense. He enjoyed with us what we were enjoying and he wasn't as concerned about how his part of it was going to turn out. We knew it would turn out well. I've never known him to fail, have you?"

Even though comedy is emphasized in* Clue, *an atmosphere of mystery and terror is maintained.

Whitlock was special visual effects consultant on *Clue*. His long-time associates at Universal, artist Syd Dutton and cinematographer Bill Taylor, owners of Illusion Arts, Inc., brought their expertise to the job. Basing their compositions upon watercolor paintings of the fictitious mansion and environs, which were designed by Lloyd and rendered by the veteran production illustrator, Bill Major, the three created composites in which the actual setting was composited with large oil paintings. Three of these shots were used to set the mood of the show.

The mansion of *Clue* was torn down within days after the completion of principal photography. In an earlier time, the studio would have used it in other films before striking it, but in today's movie climate studio space is more imperative than even the most spectacular set. "That set was like once in a lifetime for me," Kemper sighed.

"I firmly believe that a cinematographer should be brought in to confer with the designer before the set is built. Otherwise, the director and the designer will go ahead and plan a set and very often they'll design things that are almost impossible to shoot properly. I'm not saying that they should put the guy on full time, that would be unreasonable, but work out a deal where they can have him on call so that he can come in a day or two a week during the construction period and be sure the sets are going to work for him. Producers feel that it's too expensive, and yet if they lose four hours on a shooting day, that's worth $25,000 on today's market. For 25 grand they can have a cameraman for a lot of days!

"How about what they give the actors? How about the producers' fee? *My* crew certainly doesn't put the film over budget. This was my 19th film with the same gaffer, Earl Gilbert, and my 13th film with the same grip, Gaylin Schultz. They're terrific. Certainly a good grip is worth more than they ever pay him. We really work as a team and those producers who have used us realize what a good deal they get." △

Photos by Matthew Lee

Explorer Series Goes High and Low

by Nora Lee

It began with Icarus. Man wants to fly. Not in a motor-driven, metal cage – but as the eagle flies – and the relatively new sport of hang gliding is as close as man has ever gotten to imitating the birds.

Every year the intrepid men and women who love hang gliding gather in a Colorado ski resort to literally spread their wings and fly. They load their strange-looking gear onto four-wheel-drive vehicles and, caravan-style, trek up the mountain. Here above the tree line at about 12,000 feet, they begin preparations for flight. Everyone stakes out a good spot on the steep slope and the hang gliders soon look like butterflies emerging from cocoons.

The air is so thin that it is very easy to dehydrate and even easier to sunburn. Most of the gliders are equipped with oxygen. Someone is working the crowd in search of a Tums or a Rolaid.

A wind sock placed at the highest point tells the pilots enough about wind conditions. They are ready, but, so far, get little cooperation from the wind. Finally, the sock fills. Some daring soul must be first. After that they launch themselves one after the other. Some will catch that elusive thermal and actually soar with eagles by their side.

Nothing can prepare one for the sight of six or eight hang gliders circling overhead. In fact, the pilots tell of flying in Nepal and landing in the terraced fields where they were greeted by natives. At first the farmers didn't know what they were seeing. Were these creatures gods or – lunch? Once the pilots established their mere humanity the Nepalese dubbed them the butterfly men. The butterfly men with their brightly colored wings are drawing a lot of attention in Telluride, high in the Rockies, including that of a film crew representing National Geographic's "Explorer" series on Nickelodeon Cable. (Editor's Note: On Nov. 7, National Geographic announced that starting Feb. 2, 1986 "Explorer"

The Rockies provide a spectacular backdrop for the 12th Annual Hang Gliding Festival.
Opposite page: ***From Icarus to the present time, the myth becomes reality.***

would move to cable network WTBS.)

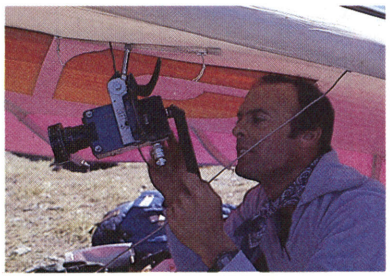
This is one assignment that does not require cinematographer Scott Ransom to get out of bed before dawn. Hang-gliders depend on "catching a thermal" in order to soar to heights of 16,000 to 20,000 feet, and you don't get good thermals till about mid-day here. Still, the call is for breakfast at 8:00, at which time Ransom lines out the day's shooting with his crew. He is acting both as director of photography and producer on this piece. The subject is the 12th Annual Telluride Hang Gliding Festival.

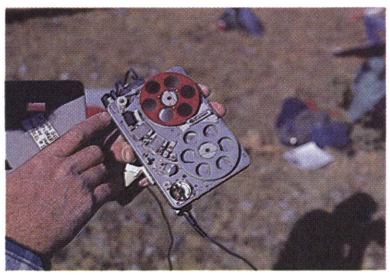
The idea to cover the festival came originally from a proposal by associate producer Dan Eitemiller. Eitemiller is a Denver-based freelance documentary filmmaker. He was very pleased when the National Geographic accepted his proposal. However, since this was his first experience with the Society, they preferred to have someone they had worked with previously act as producer. The most natural choice for the job was Scott Ransom, an eighteen-year veteran documentarist, a resident of Telluride, Colorado, and, besides, he had filmed this festival before.

Ransom filled out his crew with people he has worked with for years, in most cases. His first assistant cameraman and sometimes production manager was Ron Kanter, who also lives in Telluride. On this shoot his main function was to rig various hang gliders with cameras for some predictably spectacular footage. Ransom's second assistant was Tony McNamara. McNamara started his career in filmmaking in the editing room. Two years ago he traded in his bench for a changing bag. On the last day of the festival, Ransom added a third camera team – Edgar Boyles and Allen Becker.

The last-but-not-least member of the crew was soundman Scott Terhark. Terhark has been with Ransom long enough to develop a rather unusual working relationship. Ransom explains: "If you watch Scott, he and I work with a system that requires him to watch me all day long. If I see something that I think is part of the story (and if it is up to me to decide), then I'll just turn the camera on and start filming it. So instead of saying 'stand by' and 'sound ready,' I just start shooting. He's obliged to be with me. When we're through, we put a tail slate on it." Spontaneity is very important to Ransom. He feels that the best technique for a documentary filmmaker is to get the shot while it is happening rather than asking people to repeat themselves.

On this expedition, there is a third way to get a shot. Because of the subject matter and his previous experience, Ransom decides to mount 16mm war-surplus gunsight cameras directly on the hang gliders. The camera rigging is literally a delicate balance. To keep the gliders stablized every additional bit of weight has to be counter-balanced. Each camera





Above: ***Canter and Ransom prepare glider with reel camera mount.*** **Center:** ***Canter mounts gunsight camera for a side angle.*** **Below:** ***Terhark's mini-Nagra.***

runs off a 24-volt battery pack and carries a 50-ft magazine. The mags have to be hand loaded, though originally they were designed as disposables and they tend to be hard to come by. Kanter fits each of the cameras with a different lens, ranging from 3.5mm to 10mm, depending on the effect Ransom wants. To find his exposure he splits the difference between the correct exposure for a man in the shade and a man in the bright haze-free mountain sunlight. The Commonwealth Laboratory in Virginia will make further corrections, if necessary.

One of the pilots who volunteered to take a camera is John Heiney. Heiney has been flying since the early days of the sport, a quiet, introspective man who enjoys taking stills from the air. In fact, he designed a keel mount for his glider that puts the camera about seven feet out in front of the glider and pilot. With Heiney's permission, Kanter modified the mount to take the 16mm camera. As an added bonus, Heiney will be (as far as anyone here knows) the first hang glider pilot to record sync sound on his flight down the mountain. Terhark had rented a miniature Nagra with a 45-minute tape. Previous to launch, Terhark taped the machine to Heiney and started it. Heiney will have 45 minutes of sound and a minute and a half of film.

Once Ransom and the crew are satisfied with the way the camera is mounted, Ransom "directs" Heiney: "What I am after really is your impressions of flight for the layman. It is as if it were your first flight. We are calling it a celebration of flight rather than new designs or competition. It is just a group of people who have congregated here in Telluride and you are one person who communicated his views of a flight over Telluride on an early fall day.

"Launch is always good. We got a shot yesterday with one launch and it is a beautiful piece of film. You might want to keep the camera running as we fall away from you and then wait until you see something. Since the tape is running we need you to get whatever you're going to get within the first 45 minutes of flight."

"One consideration," interrupts Kanter, "since this is a 10 [mm lens], it's not going to show his feet. Do you want to save that for a 4.9 [mm lens] launch?"

"Naw, I think we'll go ahead because we'll have the sound and as soon as he kicks back, we have a shot. I think I'll film the launch anyway and then if we can cut from me to you . . ." Ransom trails off, planning cuts.

John Heiney nods in agreement. He is ready. Four long strides and he is airborne.

Ransom spends the rest of the morning and early afternoon shooting an interview with a man who has outfitted his glider with the latest in high tech gadgets (from an altimeter that beeps to a mobile phone) and covering various launches, as well. He and McNamara later move on to another point on the mountain where they can get some good footage of flying. Kanter and Eitemiller remain at the launch site and mount a couple more cameras in different positions on two other volunteer gliders. Later, they meet the pilots at the landing field and recover the film and equipment. In early evening, Ransom and McNamara set up on a platform across the valley from the landing field to film the "aerobats" – acrobatic or stunt pilots.

Ransom is covering this part of the festival with two cameras. One is outfitted with a 650mm telephoto lens and the other has a 300mm lens. To help

him "find" the hang gliders he has rigged the camera with the 650mm lens with a gunsight-type viewfinder. "It's not my idea originally. They use it in golf to follow the golf ball. There is a special one so that somehow you can see the ball quite clearly against the blue sky. The television people will follow the ball with the gunsight and when it lands on the green, they open the other eye and it's right there in frame," explains Ransom. "That's the same principle here. If I see somebody up there – with the target-finder I can see the whole sky – and I put the little spot on him and I open the other eye my lens should be on him, too. It helps me find things in a hurry."

As documentary shoots go, this one is a piece of cake for Ransom. Prior to this assignment he had covered the capture of Beluga whales in the Arctic for some Eastern acquariums, also for "Explorer." "I am pretty lucky because I have shot this before. The first time we did it, I spent a lot of time figuring out where we would shoot and how it would cut. And now, I wouldn't say this is an exact repeat, but I learned an awful lot that first time and I pretty much knew what I needed to do this time. I also had Ron's help and besides being a good cameraman, he's a pretty good production manager."

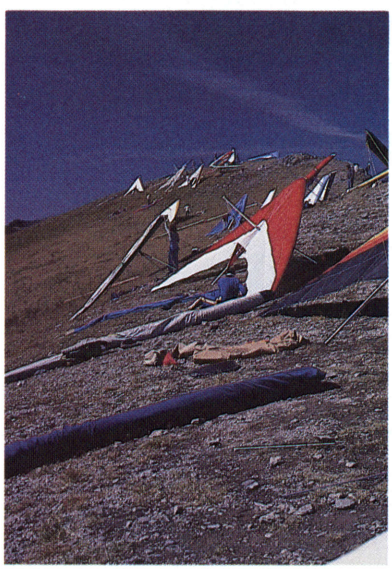
Sometimes people need as much coaxing as whales. Previous experience with the pilots was another advantage for Ransom. "I know lot of the people. You spend a lot of time just convincing these kids that you're not just another media-type that's out there to annoy them. Once they get to know you a little bit, they don't mind repeating things for the camera.

"It took us three or four days the first time to get anybody to carry a camera. This time, the first day we had three people flying cameras. A lot of the people are return guys that saw my last hang gliding film and liked that. It was a 45-minute film called *Double High*. It was a real good film about their sport. Other people tend to think of hang gliding as a death sport, like they do parachuting. Anytime these pilots can show people what fun it is and how many times they land safely and the enjoyment they get out of it, they like to do that."

The butterfly people.

The hang gliding festival is just one of the many subjects that the National Geographic is covering in its "On Assignment" segment of its cable program "Explorer." But this newest chapter in the evolutionary story of the National Geographic Society deserves further explanation. Tim Cowling, the co-executive producer for the series, says that about three years ago, the president of the society, Gilbert M. Grosvenor, and director of television, Dennis Kane, began talking about ways to get the society more involved in what they like to call "video publishing."

"We had an impeccable reputation with our specials. Four hours a year is, in some ways, a lot of television. But some exciting things were happening," recalls Cowling. "Direct broadcast satellite was being discussed, and cable was rearing its head. This stirred



up a new interest in the Society. I was hired to check out the different distribution forms and to help decide what was the next logical step for the National Geographic to take. Three months later, Tim Kelly, was hired. Eventually we decided cable was right for us.

"I had been researching for about two years to determine how much product (independent documentaries) already existed

From his 12,000 foot take-off, Heiney will soar as high as 16,000 feet. **Below:** *Ransom with his double camera coverage of the aerobats.*

that the National Geographic could be proud of. From that research, we threw everything into the hopper and came up with a formula for weekly original material and independently made documentaries. The original material gave us an opportunity to cover things that the National Geographic was involved in, as well as to be able to do things more spontaneously than we could through acquisitions. The 'On Assignment' segments give a vitality to the show. We feel that nobody can do natural history and science better than we can, so the short magazine pieces began immediately."

Before they signed a contract with Nickelodeon, National Geographic decided to test themselves and see just what they could turn out on a "reasonable, but spartan" budget. They made two half-hour and one one-hour documentaries. Joe Seamans was the producer/director of photography on one of the half-hour segments, "Herculaneum." Seamans has worked on many of the National Geographic specials over the years. He is based in Pittsburgh at the studios of WQED.

He had a twelve-day shooting schedule which he felt was more than adequate for a half-hour show. "The limitations were exhilarating. It was a wonderful opportunity to focus on a specific event. It's great not to have to cram an hour's worth of film into everything I do."

The segment dealt with the ancient mystery of Herculaneum. When Vesuvius exploded in AD 79 it buried the cities of Pompeii, Stabiae and Herculaneum. But when archaeologists began excavating Herculaneum there was something missing. There were no people, or more precisely, no skeletons. In years of excavating only ten or so skeletons had been found. What happened to the people? Where did they go? With this ancient mystery as a basis, Seamans and his crew took their camera all over present-day Herculaneum and to the excavated city as well. The focus was on Dr. Sarah Bisel and Dr. Haraldur Sigurdsson, National Geographic grantees, and their contributions to solving the mystery.

In the film, Seamans used his imagination to try to create a then-and-now feeling. The ancient buried city of Herculaneum was discovered by a well digger in 1709 when his water well went through the roof of the old stadium. Seamans had two local gentlemen introduce his modern audience to the old city. "To light the long dark passage that led from the street to the city below,"

Seamans and crew record the faces of the present in Herculaneum.

he recalled, "we just used the flashlights the workmen carried and the fixtures that were there. We did use a battery-powered Sungun for some shots, but we relied mostly on high speed film (7294) and fast lenses. There was some ambient light. We used the Sungun for wide shots so that we could distinguish shapes. We also composed shots carefully.

"In one scene there is a pool of water in the bottom of the frame and the light from the flashlights is reflected in it. That reflection filled out that part of the frame so it wasn't all black. The surfaces inside the tunnels were wet and they reflected nicely. The guys with the flashlights were great, too. I was able to tell them what things I was interested in seeing and they would work it into their dialogue and use their flashlights to point out certain things. They were very natural actors.

"That is an example of a shot that would have been impossible if I hadn't blocked it out scene by scene. I couldn't have run after them and just grabbed a shot. The lighting was too limited. But by the same token, the only way that rehearsed documentary scenes work, in my opinion, is to get the people involved in what you are doing. What I like is to try to do it once naturally – even if the camera is not running.

"You have to be sensitive to their feedback and when they say 'no, I'd never do it that way,' then you have to adjust. And truth is always stranger than fiction. So whatever I would have dreamed up and set up and lit for, if it can't happen, it's for a very good reason. Usually it's some very basic law of physics; like they can't do it that way because the hand I want them to use is the wrong hand. So I have to turn everything around." Concluded Seamans, "I have to be flexible."

To illustrate another point in the film, Seamans wanted some aerial shots of Vesuvius and Herculaneum. First he had to find a plane. "I was pleased with the aerials from two points of view – one that we didn't crash and two, that the footage was good. It was a two-seater plane and the pilot was not very experienced, although at first I didn't realize it. I should have known something was wrong when I got into the plane. He couldn't start the engine because there was a bird's nest in it. This man was a sergeant in the NATO air force, not a pilot. When we landed, we almost crashed. We skidded off the runway into the grass. I thought it was going to be curtains, but it turned out okay.

"Filming was just a matter of hanging the camera by a bungi cord some place where I had clipped onto the wing. Then I would scream at the guy – it was an open cockpit – 'go over here' or 'go over there.' I over-cranked everything at about 48 fps."

Seamans' dramatic license allowed him two technologically simple but artistically effective shots. It seems that a few years ago, workmen digging along the

Seamans used the Camrail on his return trip to Herculaneum.* Below: *"Have donkey—will carry."

former coast of Herculaneum accidentally broke into a chamber that contained well over a hundred skeletons. Here were the missing Herculaneans, or at least part of them. Seamans had to recreate the opening of the chamber. He chose to set his camera up inside the bathhouse chamber and slowly reveal the interior with a trick of light.

"The revealing light on the skeletons was done with a reflector and a piece of black cardboard. Because it was a Lowel reflector it was not entirely flat. It was bent. So in a way, there is a pattern to it. If you take a black piece of show card and cover the reflector and then slowly slide it off, it actually throws the light beam like you saw in the film. If it had been flat, then it would have been like bringing up a dimmer on a light, but the curve gave it a line," said Seamans. And the line made it look like the stone being rolled away from a crypt.

Once the skeletons were discovered, various theories were put forth to explain why these people had rushed to sea. This time Seamans chose a very simple way of illustrating their final moments. "I put a 5.9mm wide angle lens on my Arriflex SR and closed the eyepiece, grabbed the handle and ran down the street. I tried not to film my own feet coming into the edges of the frame. I held it out in front of me and about six inches off the ground and ran the camera at 24 fps." The shot ended with an artist's rendition of a powerful, debris-filled volcanic wind overtaking the doomed Herculaneans.

The piece on Herculaneum was a hit, both with the Society and with viewers. It has prompted a traditional one-hour National Geographic Special and Seamans has just returned from expanding the film. Wherever he goes Seamans is prepared. For him, that is the key to versatility. Unfortunately, his lighting and grip packages seem to grow in proportion to his flexibility.

Experience has taught Seamans not to depend on finding what he needs in a foreign country. "I bring everything with me. I take a Lowel package of OMNI lights. I also take two Lowel Ds, 1000 watt. I generally take an inky and my grip package is becoming larger and larger all the time. Right now it includes 8'x12' silks that I made, and a 6'x6' silk, a bunch of extension poles, some tent poles that I use instead of frames for the silks (I can take the silks but not the frames, so I hang them however I can), a ton of black fabric, and Blackwrap. I took a new Strand Century par light – an HMI with an electronic balance – to Herculaneum. It is normally something you would never think of bringing that far, but it added a whole dimension to what I was able to do. Finding stuff on location in Europe is not always easy. Sometimes we *have* to rent, but I try to avoid it.

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"Then, I have a whole twelve-volt portable lighting system, too. I have never yet gotten into a situation where I had to rely on a generator, thank goodness. With high speed lenses and 94 film there are a lot of ways to light with smaller lights. That's something I am always working with. The worst power situation I ever had was right here in the United States on a Navajo Indian Reservation. I had to use reflectors and bounced light because we couldn't get what we needed. With 220, it's usually just a matter of having the right plug and then we can put in the right kind of light. So I have a bag of plugs from all over – Australia, Italy, Israel. Lighting requires being inventive and careful. It is one of the most enjoyable things about the job, because there is never a standard way to do it and the equipment package is fairly limited," said Seamans.

As with Scott Ransom, Seamans had an advantage on his return trip to Herculaneum. He already knew a lot about the city and the available light, and he made plans accordingly. "This time I took a Camrail which is a small monorail track. It is an aluminum I-beam that comes in four-foot sectons. You set it up on tripods and there is a carriage or a trolley that slides on to it. You attach a tripod head to the trolley and it is possible to do a dolly shot. This system is lighter than a dolly, though, and it's something we can take into historical sights without the risk of damaging the floors. It also means the possibility of going through a window or something like that.

"I didn't want the interiors to be static," continued Seamans, "but I didn't want to put mindless zooms and stuff in there either. I thought that very slow changes of perspective might be kind of nice. I took an intervalometer also. I wanted to try some things with light coming through the atriums and passing slowly across the frescoes. Hopefully, it gives the same sort of feeling that we had when we first saw the skeletons."

In the nine months since Herculaneum's debut, the "On Assignment" segment of the "Explorer" series has taken audiences on an incredible list of adventures. Some have been simpler, more serene stories like the intimate portrait of the furniture carver and the walnut tree. Others have the flavor of the original National Geographic Specials. Steve Eder, senior producer for the "On Assignment" features, said that in the tradition of the magazine and the specials, the idea is still to "push the envelope." Wading in a foot and a half of bat guano qualifies as a push. Eder elaborated:

"Very few films have been done on bats, and especially on this particular population which is down in a cave in Bracken, Texas. Bracken has a seasonal population of about 20 million bats. They migrate there and the giant cave is a nursery. When the babies get big enough they all take off for Mexico. Merlin Tuttle, from the Milwaukee Museum of Natural History, said we were going to have some problems if we wanted to shoot in the cave. First of all the air: ammonia fumes will kill you. Or you can contract diseases like rabies through the air.

"Great.

"Another problem was the temperature varies from 100 to 110 degrees because there are a lot of bats in there. Third problem, the floor of the cave is covered with guano about a foot and a half thick. However, it is very dry, like a powder. But, living on top of the guano are millions of carnivorous insects which exist by eating baby bats that fall to the ground or older bats who die. The exterior of the cave is like a big cafeteria. It provides food for a number of creatures like rattlesnakes and vultures and other nice little entities." All the possible health problems meant that Eder had to lock a crew in early enough that they could all have a series of rabies shots.

"We also had to call Eastman Kodak and ask them what would happen to film stock in an atmosphere of 200 parts per million of ammonia. Kodak didn't know, but they were very interested. They apparently flooded a room with ammonia gas and exposed some film to it. We waited with bated breath for results. When they called they told us that as far as they could tell, nothing would happen to the film.

"Another problem: Paul Rusnak, the sound man, found that the only other soundman who had done any work in caves where bats lived said that the ultra-high frequency emitted by the bats in such a large population are so strong, they completely overcome the soundtrack. You get static even though you don't hear it over the microphone. So we had to completely modify Paul's Nagra with a series of high frequency pads. I went down a day early and went in with a little Pearl recorder and sure enough all I got was hissing.

"We had to find respirators that would shield us from ammonia fumes. We did find them, but they were designed for industrial use in a factory somewhere. They were not designed for film crews huffing and puffing down into caves. But they had to do.

"We went to Bracken cave with Merlin, who was the best of guides, and very funny things began to happen. Bob Hanna, who was the cameraman, had some incredible problems to overcome. Aside from the sort of misting bat guano coming down from the ceiling (which precipitated a two hour cleaning session for Steve McNutt, his poor assistant cameraman every night), he had light problems. How do you film a totally dark environment? What I wanted, and what I realized had never been done before, was to light the entire cave. Now, this is an area the size of a football field, 150 feet below the ground.

"We called a local gaffer and got some huge nine-lights and hundreds of feet of heavy cable

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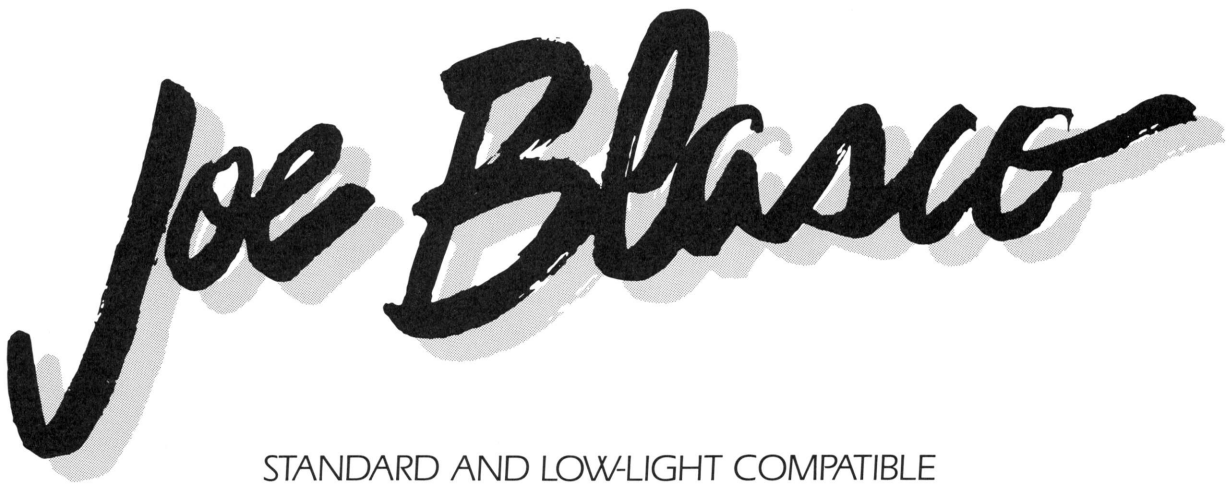

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and a 225 amp generator and jackassed that across this ranch. The gaffer met us and it suddenly dawned on us that the gaffer could not go into the cave. He hadn't had his rabies shots. That meant we all gaffed it ourselves. It took about six trips per man in and out of the cave hauling cable, the bull switch, nine-lights and tripods. We then set Merlin up in the middle of it all. It should be noted that we had tested, under Merlin's supervision, the effect of lights on the population. We did not want to disturb them too much. We determined that the light would cause no future problems.

"So here we have the cameraman sitting in a totally dark environment. He had to get his exposure right the first time because as soon as we turned the lights on, the bats would begin to swirl around. We only had the gaffer for one day so it all had to work. Bob focused on Merlin's head lamp, which was about 50 yards away. Everyone was ready. We threw the bull switch and got the shot.

"The masks started breaking down. The diaphragms just couldn't take the amount of pressure and moisture we were putting on them. It was like walking up and down in a snow drift all day long. We had to get ourselves out of there really fast a couple of times. You see, if we fell down in the cave, the bugs would eat us. We had to wear coveralls with gaffer's tape around our boots to keep them out. A few dropped down people's backs and bit them, causing big welts. Merlin calmly told us that if we ever did black out down there, there would be a skeleton in about two hours.

"It was a lot of laughs. . .

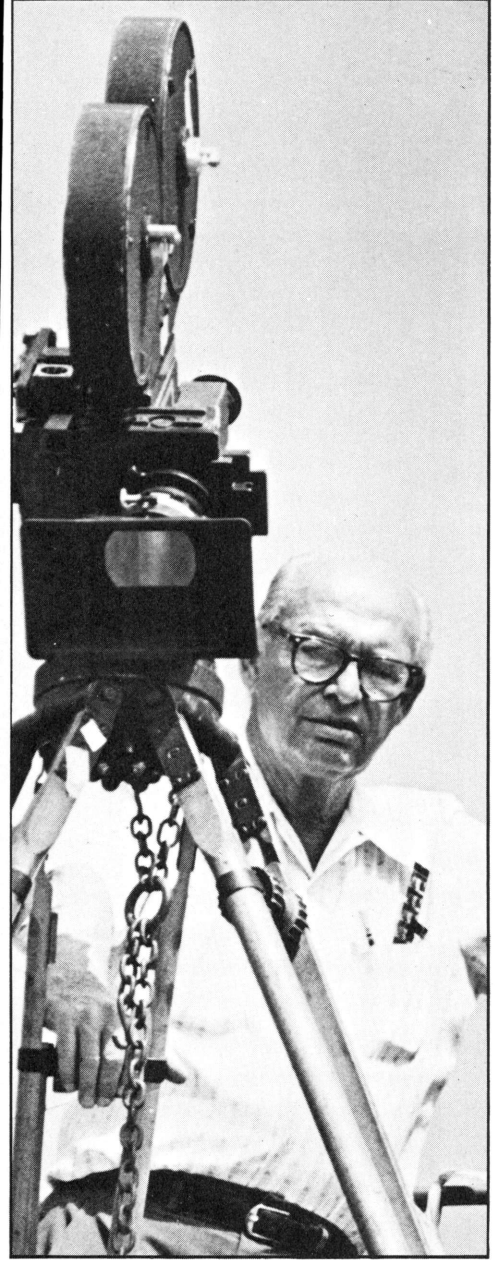
"We got the show but it was such a difficult thing to film that I found myself sitting in a truck we had storyboarding the entire shoot on a yellow legal pad. We had to. We just couldn't stay in the cave for more than a couple of hours at a time. I would say that our shooting ratio was about 2 to 1. Very unusual for a documentary crew."

Other "Explorer" adventures have included producer Paul Gasek and his crew chasing tornadoes across the plains of Oklahoma only to become the chasee instead of the chaser. Before they were through, the crew had witnessed the legendary grapefruit-size hail of the region.

Very recently returned from a shoot in Kourion, Cypress, where he had produced a piece on an archeological dig near an RAF base, Eder recalled how he had substituted a borrowed cherry picker for an airplane. "We did know that we were filming at this site that happened to be on an RAF base in Cypress. What we didn't know was that we were filming during the hostage crisis with the TWA airliner. That was happening just across the Mediterranean in Lebanon. One day we were out filming and I noticed a lot of odd, big aircraft going in and out of this air base. Turns out it was the Delta Force. I approached one of the RAF guys about taking some aerial footage and he said that I might be able to do that, but that I might also get shot down. We borrowed the cherry picker and the shots are fine."

Producer/cinematographer Jim Lipscomb was sent on assignment to Haiti in search of a sacred waterfall and a white voodoo festival. He paid his guide but his guide did not pay the porters, so there was plenty of bad juju before he got to his destination. Once there, he drew on his experience shooting the America's Cup race and devised a way to get his camera into the waterfall without getting the lens wet. He used a spinning disc. Says Eder, "It is the oddest shot because you know you are in the waterfall. You can see the water coming down, but you can't figure out why there is no water on the lens."

According to Eder, Lipscomb also had a very interesting experience at the Coast Guard Lifesaving School at Cape Disappointment in Oregon. "Jim was on call waiting for the Coast Guard,



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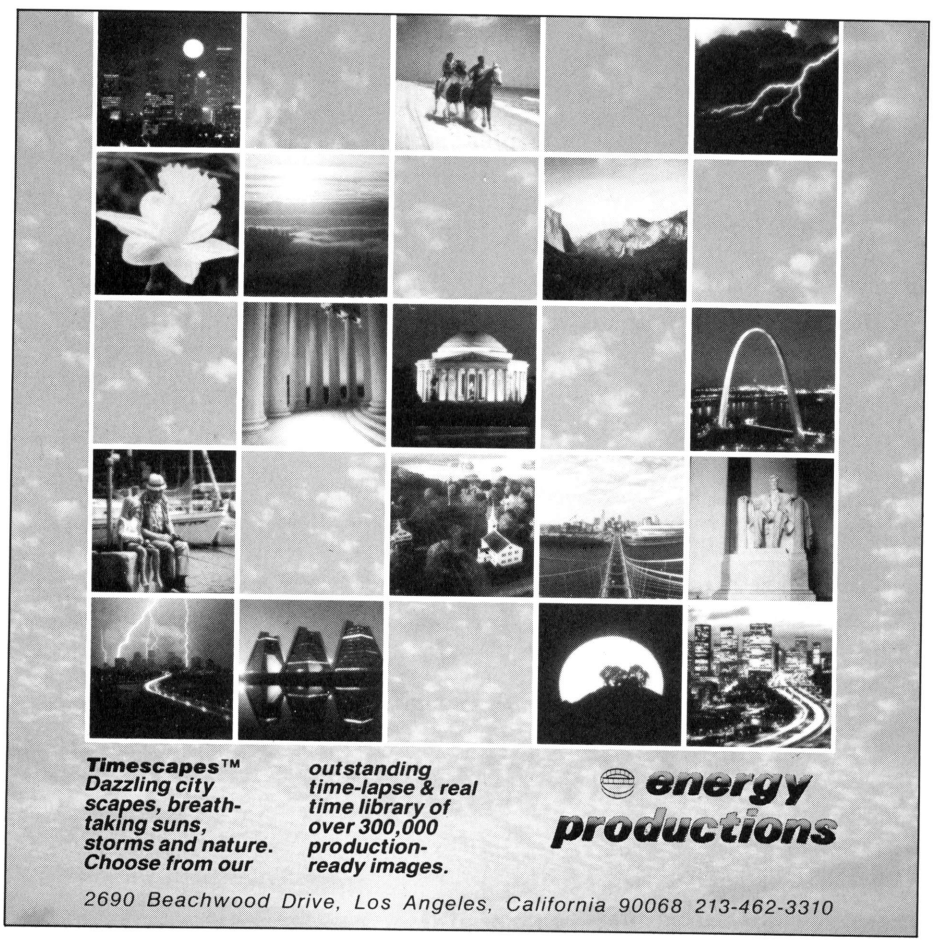
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and the standing joke was 'Gee, I hope you get some bad weather, Jim.' That's what we were hoping for so we could get out and really show what the boats could do. Along with Jim was his son, John Lipscomb, who was second camera and soundman. They had to work with a very small crew because of the size of the boats. Out at sea, they were hit by a freak wave and we have what happened on film. John Lipscomb was at the stern of this 41-footer. They were all strapped in and the next thing he knew, he was flying about 8 feet in the air and when he came down he discovered the camera was no longer in his hands and he had lost his helmet. He almost broke his ankle. Jim was bounced around and the pair spent a day in the hospital to make sure that they were okay. But they got the story. That second camera is somewhere at the bottom of the bay . . ."

"Pushing the envelope" is a phrase the early jet test pilots used. They were charting unknown territory and in a way, it's the same path the documentarist has taken. He or she is as much romantic adventurer as camera technician: taking risks – albeit calculated ones – in search of unicorns.

But Scott Ransom, who has been on the quest for almost twenty years, is slowly moving into feature films. He had second unit credit on several recent films; the latest is *My Summer Vacation.* He has no regrets about his adventurous life, but, he says, "You get older, and. . . ." *And* you get tired of having to concentrate so much on your survival and a warm, dry bed.

For those producer/cinematographers who have the heart of the adventurer, the soul of the poet, and the constitition of a bull elephant, the National Geographic has set the standard for excellence and provided them with the means for the quest. In return, their films have delighted and continue to delight audiences everywhere. △

Logistics of Balloon Cinematography

by Michael Crowley

A thermal condition is an inconsistency in air pressure systems resulting from temperature changes in the air. If the air is cold, and the sun rises and heats the ground, the air near the ground rises. Cooler air rises to fill the void. Simultaneous up and down drafts develop. So what? Who cares? If you are a hot-air balloon pilot, you care, and if you are the director of a documentary on the subject, standing inside a balloon basket with an Eclair NPR camera and a Nagra sync-sound recorder, you quite certainly care.

Yes, yes, but is it really that risky? Can you truly have turbulence in a hot-air balloon?

"You sure as hell can," says Jack Oswald, president and executive producer of the Pasadena-based film company, Goal Productions, and director/producer of that company's most exciting project to date: a dual marketing/full length documentary film on one of Europe's most novel and spectacular modes of entertainment travel, hot-air ballooning. It was a subject that Oswald and cameraman/co-producer Robert Ballo couldn't refuse, in a location they couldn't refuse, but with logistic challenges they were tempted to refuse. "Ballooning is beautiful and generally safe," Jack explains, "but make no mistake. A severe thermal condition can knock the air out of a balloon."

Goal Productions was not quite alien to the world of hot-air ballooning. Ballo explains, "We had used one before on a show we prepared for the Callaway Vineyards."

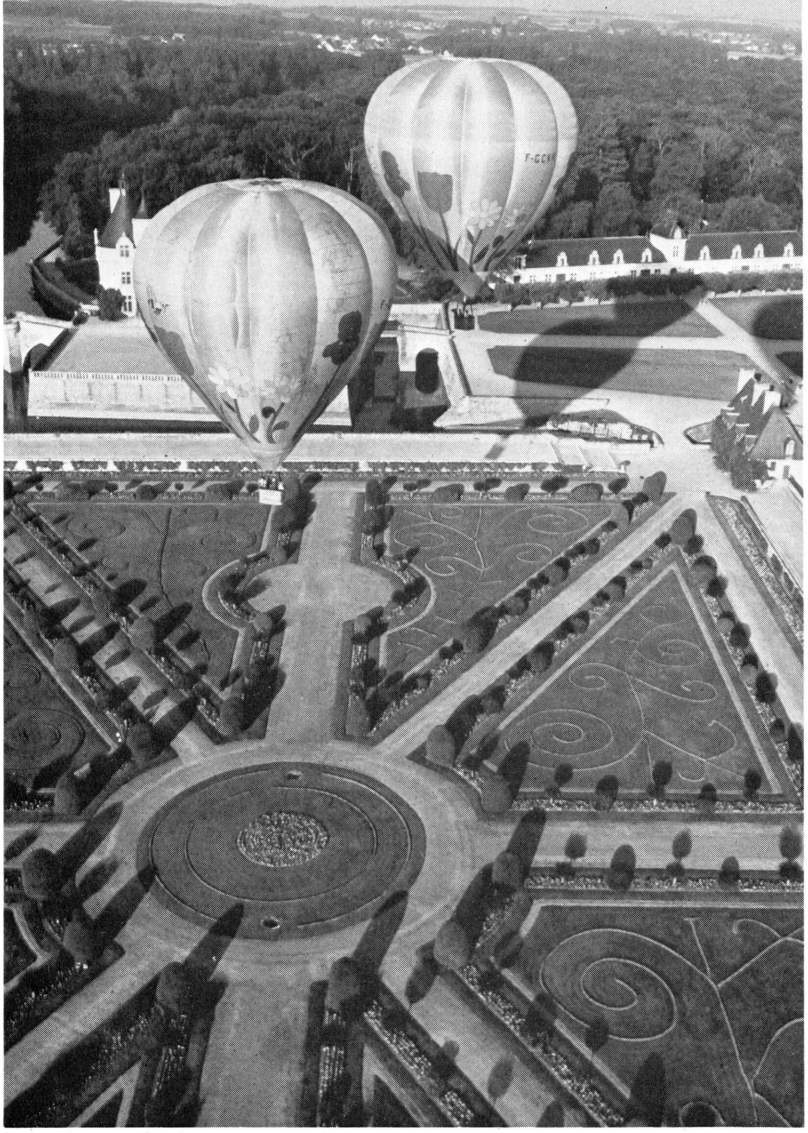
Jack recalls that well. "That was when we first learned that you can't control them."

Thus, armed with three and sometimes five cameras, a Nagra sync-sound recorder, pounds of additional equipment, and the complete cooperation of Buddy Bombard's famous Bombard Society balloon pilots, Jack and Robert battled tight schedules and mercurial weather patterns in order to film the excitement and adventure of balloon travel over what is arguably one of the most gorgeous terrains in the world.

The first of the two films is complete and in use. "The Great European Balloon Adventure with Buddy Bombard," is 40 minutes long and has been screened in about 20 major US and Canadian cities along with a presentation by Bombard to promote the vacation balloon trip.

The Bombard Society, although headquartered in McLean, Virginia operates from May through November out of Beaune, France. Beaune is the capital of the Burgundy region and is the heart of the medieval area of France. For eight years they have been providing vacations in Burgundy and The Loire Valley in France; last year added Salzburg, Austria. Now,

Three balloons take-off from garden of Chateau Seillac in France. **Left:** ***Oswald and Ballo at Chenonceaux.***



Over the garden of the Chateau Chenonceaux in the Loire Valley.

in the 1985 season, they have added Sienna, Italy and Bern and Lucerne, Switzerland. Guests spend from three days to a week with The Bombard Society where their time is roughly broken into three parts; dining, sightseeing and ballooning.

Ballo points out, "A balloon only flies well when there is little or no wind, and there is usually little or no wind in the early morning and late afternoon, around sunset."

Because France is so far north, the Midnight Sun factor comes into play. The prime flight windows are between 6:45 and 8:45 AM, and from 6:45 and 9:45 at night. There is usable light until nearly ten. While this may seem, at first, a great benefit, it poses two serious problems to filmmakers. "First," Jack emphasizes, "your work day is quite long. Second, you're in marginal light. Seldom is it really bright, sunny-noon-day light. It's a very beautiful light, but it tends to create problems in terms of exposure."

Generally speaking, Jack and Robert would shoot with Eastman Color Negative 7291 until sunset. "And then," Robert recalls, "we'd switch to 7294, which became our twilight film.

"Looking back we find very little difference between the two emulsions if properly exposed but the real lifesaver was combining the film with use of high speed lenses. In fact," Robert adds, "that extra stop or stop and a half can mean the difference between no light and barely adequate exposure.

"European summers are cloudier and cooler than ours, especially if you're a Californian, so we had to constantly deal with filming in rather flat light. Fortunately, the spectacular look of the Burgundian countryside and ballooning itself outweighed the gray skies."

"Besides," Robert explained, "we tend to forget that Eastman color negative film responds fantastically to that nice soft light that's associated with lower and flatter contrasts. We had our own built in silks!"

Adds Jack, "We had sequences shot when it was nearly pitch black, and our editors can hardly believe it. Not once did we use any artificial light for twilight photography. There were a couple of times we counted on headlights to help out a shot. French headlights, by the way, aren't the brightest, so they don't help much. We found ourselves down to f 1.2 on the exposure meter, to the point where we were very concerned. Sometimes the lens on the camera was open all the way. Yet, we were occasionally overexposing film when there was not even an exposure reading!"

Surprisingly, the difficulty with the evening balloon shoots was alleviated somewhat, and photographically enhanced because the burner of a hot-air balloon provides a fair amount of light with an attractive glow. Specifically, a type of propane burner called a cow burner was of great help. It gives off an orangish, rather warm light. In addition, the cow burner doesn't hamper sound; it is very quiet. It was designed to keep afloat over country areas without frightening the animals below. This combination of color, light, and sound gave a pleasing uniqueness to much of the footage.

Variation of imagery became a key concern for the crew once they had exhausted common angles and methods of balloon photography. They began to search for ways to capture the event-nature of balloon travel. "A balloon isn't very exciting to watch for long periods of time," Jack feels. "A balloon is slow, graceful, and charming, but there isn't much going on inside it. A balloon is sort of like an elephant; you can only watch an elephant for so long before you move on to the monkey house." Jack and Robert decided that the best way to retain the scope of balloon flight on film would be to relate the balloons, in every shot, to their environment; and to use the environment as completely as possible, so the viewer could experience the sensations

of flight and recognize the differences between time and motion, near and far.

"Filming in a balloon, you must be able to see the ground, or perhaps a tree in the shot, so you can relate time and speed in order to get a better feel for the third dimension. If you can't do that, you might as well stick a camera on top of a hill and pan slowly over the horizon, left to right. You would get the same sort of shot," says Robert.

Brainstorming sessions yielded ideas for new and more inventive methods of photographing balloon travel. On several of the most exciting shoots, the two man crew double-shot, simultaneously shooting a maneuver from the ground and from the air, while recording it sync-sound with a Nagra. "For shooting directly from a balloon basket," Robert stresses, "we worked much better on a tripod than hand-held. When there's just you and the pilot, you can have a very stable platform. It's like a crane, maybe even better."

In addition to the double-shooting, Goal assembled a special mount that would allow for an overhead shot of the balloon basket during flight. Robert Ballo explains, "It extended some four-and-a-half feet out of the basket, perpendicular to the bracketry, away from the balloon. We had our supergrip mount – not the grip itself, but the Matthews tilt-and-level platform – mounted out there with the Arri-S. This was for a POV shot, looking down into the basket of the balloon while in flight. We attached a wide enough lens to the camera so the ground below would be visible in the shot, pre-set our framing on the ground, and then went up." A 5.7 lens was used, so the passing ground was visible beneath the basket.

For about two weeks during the production Oswald and Ballo were joined by two other crew members from the states. Cameraman Bob Yeomans and sound and production assistant Kenji Thiel provided the added capability to do more controlled double shooting, some high speed sequences and to be able to take advantage of the best weather days for concentrated photography.

To insure a realistic ambience, it was decided early in production that not one foot of film would be shot without a sync-sound accompaniment. Says Jack, "I don't give a damn if it's just a car honking. Sync sound adds a special dimension to film and makes a shot exciting by actually putting you there. It adds realism that preserves the scope, as well as the feeling, of what you're trying to capture."

And capture the reality of the story is what Goal's crew did. They went to great lengths to document the most spectacular balloon imagery in the finest weather conditions they could find. Jack and Robert were typically up by five AM to survey the weather and prepare for a morning flight.

Every safe opportunity to fly was exploited, even when there was an obstructive weather forecast or some not-fully-resolved technical problem.

One morning they were forced to shoot some aerial maneuvers with a set of camera batteries that were not fully recharged. To hunt down charged batteries would waste valuable time, and the weather was picture-perfect. The balloon fleet was ready to go. After a brief conference, they decided to try to get the shots. Jack and Robert went up, the first battery failed, and the fleet made an emergency landing (one of the balloons had to land on a road, and was promptly chased off by a policeman). The first battery was replaced by a second doubtful battery, and once again the balloons rose for the shot. The second battery failed.

The balloon landed again and stood dormant for almost an hour while one of the Bombard crew members drove back to the chateau where the equipment was located and returned with freshly charged batteries. Luckily, the weather remained clear and, at last, the balloons and crew returned to the skies with operational cameras.

Several of Goal's final shoots in France involved photographing the annual grape-picking festival in the Loire Valley, known as the Vandage. Jack and Robert had five days to shoot the event, but those five days were plagued with torrential rains. At last, they awoke to what seemed a crystalline, blue-sky day. They were up in a balloon for aerial photography of the Vandage by 8 am.

"But," says Jack regretfully, "we were forced down at 9:15, when

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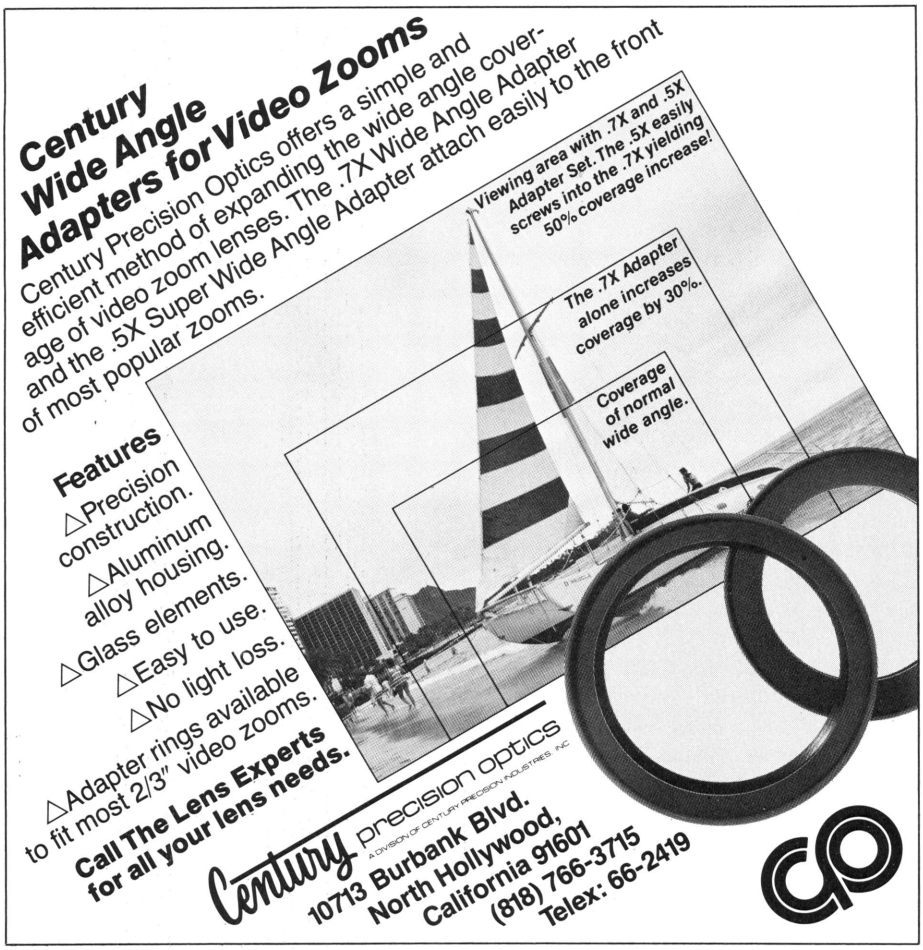
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the rains came. And these were heavy rains. First it was light showers and then it poured. We landed while the rain was light and it got foggy. We spent the next two hours huddled up in the basket, while Chief Pilot Jack Campbell hiked out in the fog and rain to find our chase van." English made balloon baskets are nearly waterproof but not totally. As it turned out, the van was less than a hundred yards from the balloon, but communications had been lost and the fog was too thick to see through. Both Jack and Robert caught the flu not long after the aborted shoot.

Approximately 40,000 feet of 16mm film was shot on three trips to Europe. So the biggest problem became selecting the right material to tell the Bombard story. "Post production on a shoot like this can really be a job," Robert explained, "but we had it well organized and thanks to Larry Ross and Randy Boyd who worked as co-editors, it went surprisingly well. We shot virtually everything sync sound which provided much more to work with in editorial."

Original music has been composed for "The Great European Balloon Adventure" by Richard Gastineau, a talented composer and keyboard player who has collaborated with Goal on several other films.

The success of the production is somehow related to the fact that each recollection of a near-disaster or technical difficulty is followed by a knowing laugh; as if there was never any doubt that, come hell or high winds, Goal Productions would never leave Europe without precisely the footage they needed to transfer onto film the splendor of balloon travel. Looking back, Jack says, "We did our best to meet the challenges as they came, and they never really became a problem. Robert and I always kept in mind how lucky we were to be able to work on something like this. We never had the time to become complacent. It's one of the most exciting projects that anyone could ever work on."

Michael Crowley was born in Modesto, California in 1963. He lives in Los Angeles, where he is currently a cinema student at the University of Southern California. He has written several novels and screenplays.

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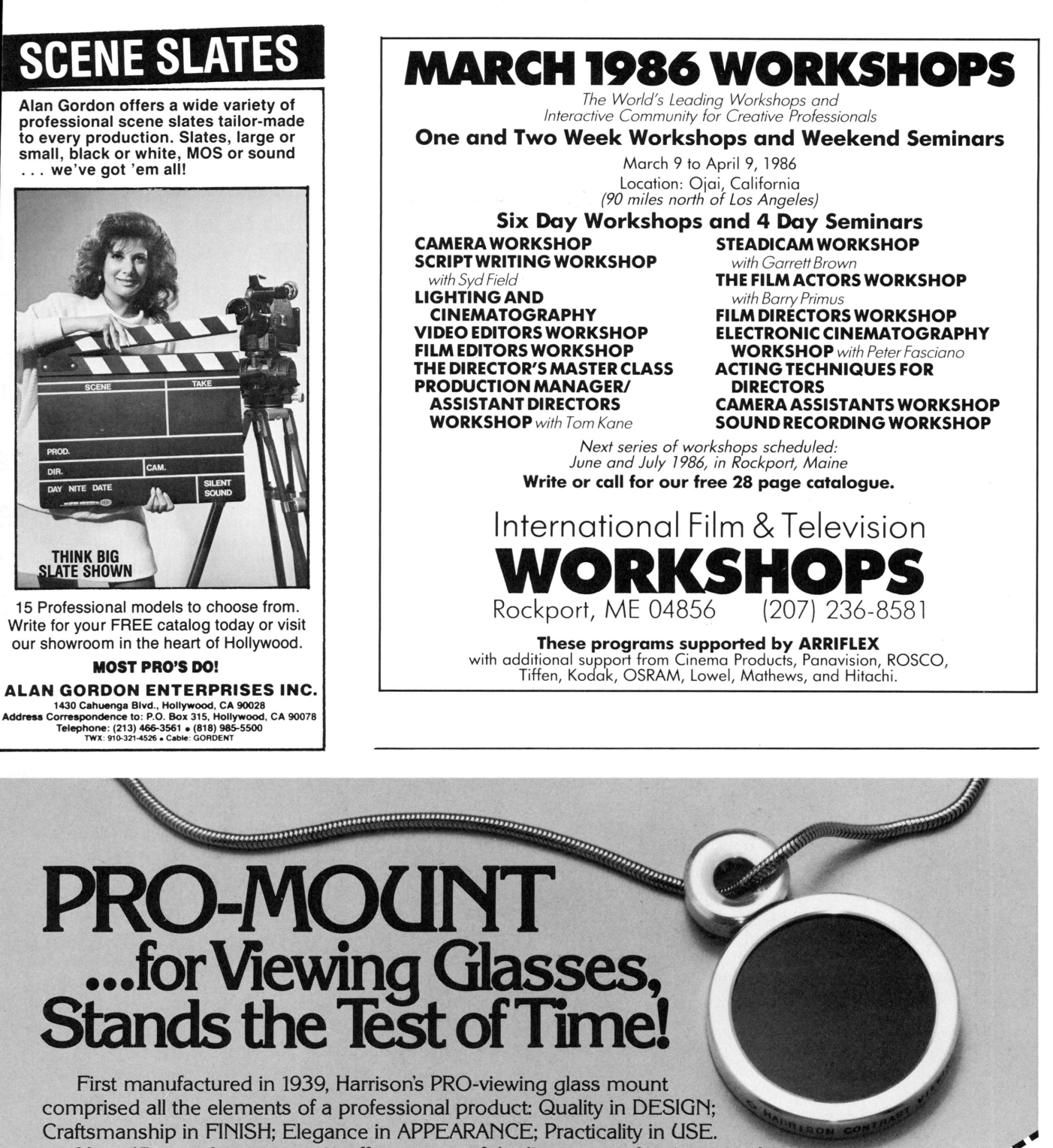

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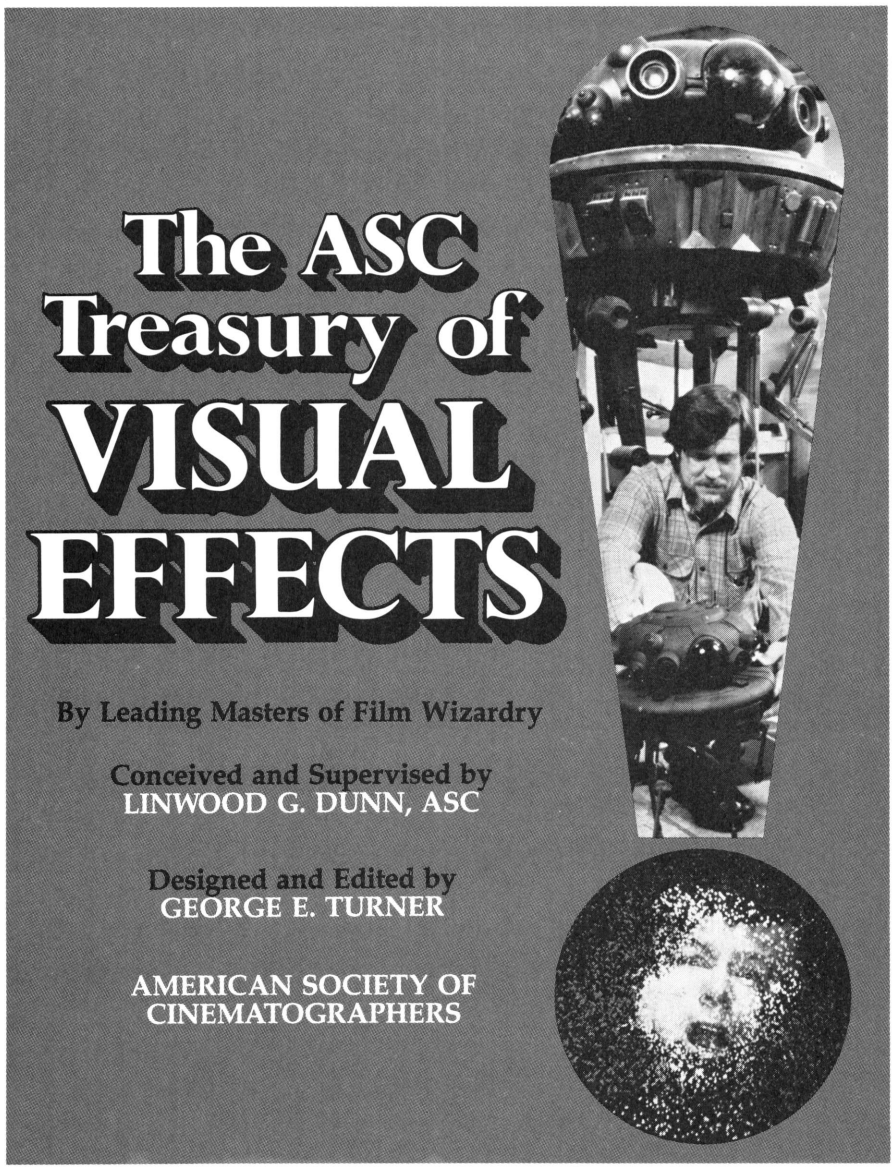

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New 16MM High-Speed Film

by Richard K. Schafer

Working with a new high speed film are (left to right) Colin Voisey, Sandra Jones, Brian Morgan and Howard Rockcliffe on location at New York City's South Street Seaport.

Picture this scenario. You are shooting a documentary at a practical location. It is a comparatively dark interior and the available light is fading fast. The director wants to keep things flowing naturally and easily. In other words, the director doesn't want you to throw any light on the subject.

No problem if you are working in the 35mm format. Today's high-speed color negative films have plenty of latitude to handle situations such as this. In most cases, you light for effect rather than exposure. Today, it isn't unusual for a cinematographer to use as little as six footcandles of key light while shooting through a prime lens at maximum aperture, perhaps stop T-1.4.

While there are exceptions to this rule, in general, most daylight exteriors for theatrical features and "made-for-television" movies and series are shot on a medium-speed emulsion such as Eastman color negative film 5247. This 35mm film has a recommended EI of 125 in 3200 K tungsten light and an EI of 80 in daylight when it is used in conjunction with a Kodak Wratten gelatin filter No. 85.

Most interiors and night scenes are recorded on a low-light-sensitive emulsion, i.e., Eastman color high speed negative film 5294. This "fast" film is rated for an exposure index of 400 in 3200 K tungsten light or 250 in daylight with a Wratten No. 85 filter on the camera lens.

These fast- and medium-speed 35mm color negative films are an excellent match. This is important since it allows the director of photography to choose the most appropriate emulsion for each scene. Image characteristics such as sharpness and grain structure are so close that any objective differences usually aren't noticed by the audience.

Imagine, however, that you are filming your documentary in the 16mm film format. Now, you have a different set of conditions. Remember, a

Morgan directs placement of light for dark corner of Fulton Street Market in New York City.

16mm frame is not half of the area of 35mm; it is *one-fourth* of the area. That's a big difference. Even a slight increase in granularity or a reduction in sharpness will be more noticeable when you project the magnified image on a large theater screen, or even on a TV screen.

Fortunately, impressive gains have been made in 16mm color negative film emulsion technology during recent years. The most recent of these developments is a new high-speed 16mm color negative film that provides the cinematographer with more creative as well as practical latitude in low-light situations. Eastman color high speed negative film 7292 was introduced in July at the BKSTS '85 Conference in London. It will replace Eastman color high speed negative film 7294.

The new high-speed color negative film has noticeably improved image characteristics, including sharpness and grain structure. Because of these improvements, the new emulsion intercuts extremely well – a point that was demonstrated at the BKSTS '85 Conference – with the medium-speed Eastman color negative film 7291.

In most other ways, the 7294 and 7292 high-speed emulsions share common characteristics. For example, both films are rated for an exposure index of 320 in 3200 K tungsten light and 200 in daylight with a Wratten No. 85 filter on the camera lens. Both films are also designed for process ECN-2.

It is no coincidence that we chose to introduce this low-light-sensitive emulsion at the BKSTS '85 Conference. Eastman color high speed negative film 7292 is especially suited to specific needs of the television program production industries in England and other Western European countries. A great proportion of television production in England is originated on 16mm color negative film. The television program production industries in other Western European countries also originate a majority of their prime time entertainment and documentary shows on 16mm film.

Eastman color high speed negative film 7292 is the first motion picture stock to incorporate Kodak T-Grain emulsion in some elements of its architecture. T-Grain emulsion gets its name from the comparatively flat, tablet-like appearance of the silver-halide crystal.

The T-Grain emulsion was first used in Kodacolor VR 1000 film in 1983. It presents a larger, more efficient target for gathering light than conventional silver-halide crystals. It also makes it possible for film designers to construct a thinner emulsion layer, which in turn, reduces light scatter, a factor that affects image sharpness.

However, while the T-Grain emulsion is an interesting topic, it is only one of the advanced technologies used to construct this new, high speed 16mm film. As most readers of this publication know, a color negative film consists of a number of emulsion layers and interlayers that form an architecture which determines the image characteristics of a particular emulsion – including how fast it is, color rendition, image sharpness, granularity, and so on. In this context, the design of any new film is simply a recipe for satisfying a particular appetite – in this case, the need for a 16mm color negative film which is fast enough for low-light cinematography, with an improved image structure, particularly in the areas of granularity and sharpness.

The improvements in the image structure of the 7292 film are most noticeable by the reduction of grain in shadow areas, particularly when the film is exposed in low-light conditions. This becomes most obvious when it is necessary to rate the "fast" film at a higher EI, such as 400 or 500. In practical terms, this means that even when the film is exposed under extreme low-lighting conditions, the improvements in image structure will allow it to be intercut with the medium-speed emulsion without jarring differences in sharpness and granularity.

The benefits will be apparent both in optical projection and television display. Television program producers and broadcasting industry engineers should be especially pleased when they see the high-quality video tape transfers – in PAL, SECAM and NTSC systems – which can be made from 7292 film originals.

In many cases, the differences between the 7294 film and the new high-speed 7292 film will be more subtle than dramatic. A lot, of course, will depend upon the situation – how dark it is, or how fast something is moving – or the look that the cinematographer is trying to achieve.

If you are using a long lens on an exterior shot in a situation where the light is fading fast, or if you are working at a dimly lit practical location and the situation calls for a zoom rather than a prime lens, the improvements in image structure might provide that extra edge that you need. When you come right down to it, isn't this the name of the game? You paint subtle images with light and shadows; you create moods and establish periods, and then you hope that somehow all of this will be translated to a film print for projection or a video tape for television transmission which faithfully reproduces your work.

The bottom line is that this new high-speed color negative film is not the end of a journey. It is simply another step in the right direction. △

(Richard Schafer is responsible for planning, development and marketing of professional motion picture film products sold by Eastman Kodak Company.)

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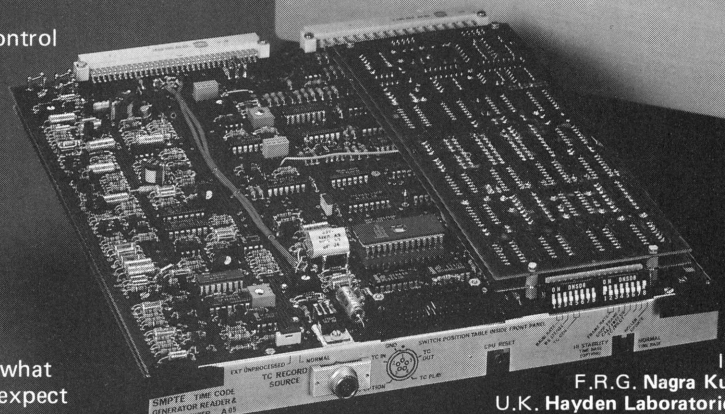

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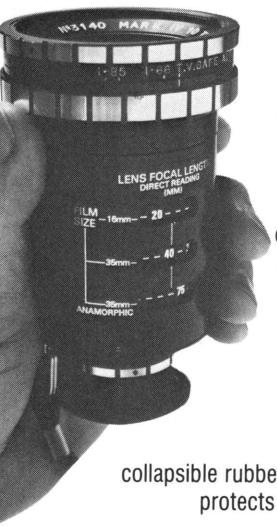

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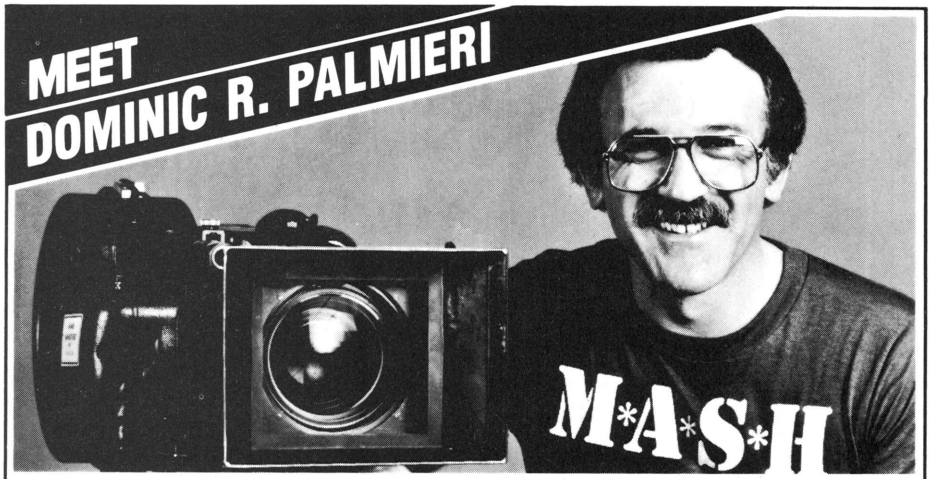

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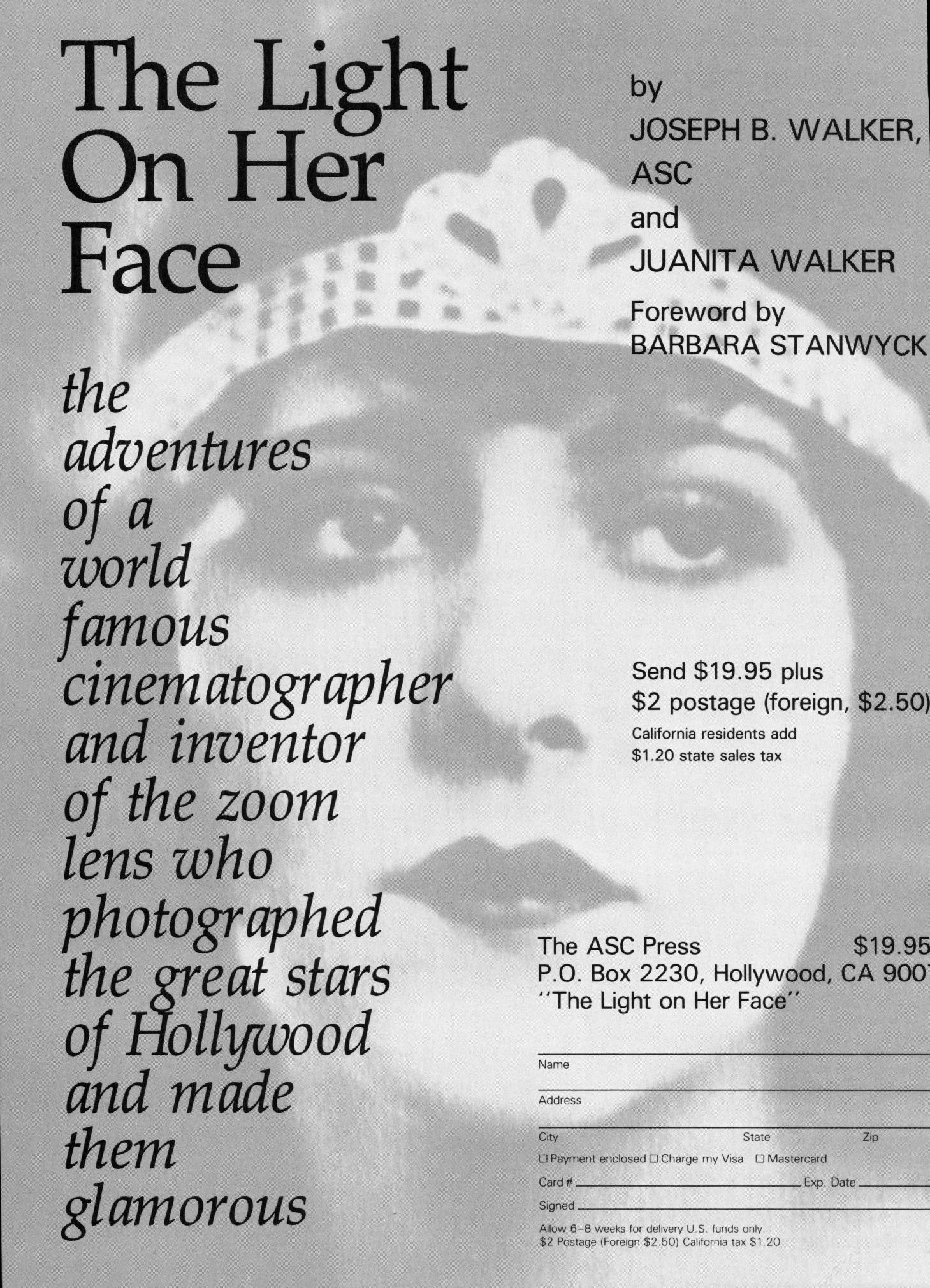

The Light On Her Face

by
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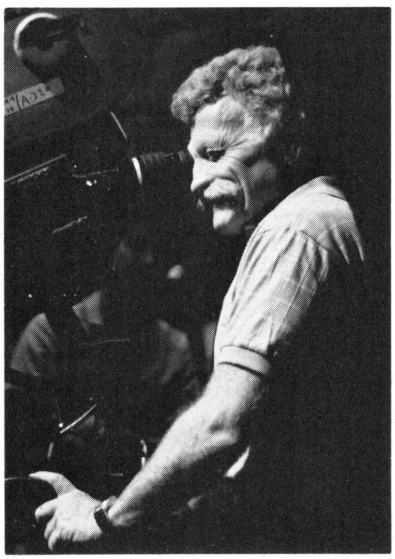
Behind-the-Lens Diffusion

by Isidore Mankofsky, ASC

When I was preparing to shoot *Getting Physical,* a television movie for CBS, the director, Steve Stern, came up with a suggestion that was new to me. He wanted to use diffusion, but for TV it would have to be a very subtle degree of diffusion. He suggested putting the diffusion material behind the lens. He said he knew this technique had been used on a picture he had made in Canada and he thought that the Canadian cameraman had picked it up from an English cameraman who had developed it.



When I discussed the possibility with the technicians at Panavision, none of them had had any experience with it. We decided to make some tests. Normally, with a television movie there isn't much time for such testing, but we were fortunate in this case and we were able to make enough tests to convince me that it could be a viable technique. We tested three different nets: a fine, black nylon from a stocking, which was the finest nylon available; black silk, not so fine; and a heavier brown nylon. The first proved best for our purposes.

We attached the net to the rear of the lens with clear nail polish. I found that it gave me a more subtle diffusion than I could get with a #1 filter in front of the lens, but that it had the advantage of being more consistent for different f/ stops and focal lengths. I did find that I could not stop down past f/5.6 without beginning to see the pattern of the diffusion material in the image, but this was not a problem for the production.

Also, with the extreme wide-angle lenses (17mm and 20mm), there was not sufficient room between the rear element and the shutter to mount the material on the back of the lens, so we mounted the diffusion screen in the filter slot. This worked fine with the wide-angle lenses, but our tests revealed that putting the material in the filter slot was not as successful with longer lenses. With the longer lenses the diffusion material was much more likely to become visible in the image as we stopped down if it was placed in the filter slot.

For the 10:1 zoom lens we decided we would not use any diffusion since the zoom tends to be slightly softer than the prime lenses. Also, we didn't have the time to test the effects of behind-the-lens diffusion with this particular zoom. With other zooms we put the diffusion material in the gel holder which screws onto the back of the lens.

Shooting into practical lights gave us a starburst effect, those in front being fairly sharp and those behind less cleanly defined.

The results overall were comparable to using diffusion material on the front of the lens. There are, however, certain advantages:

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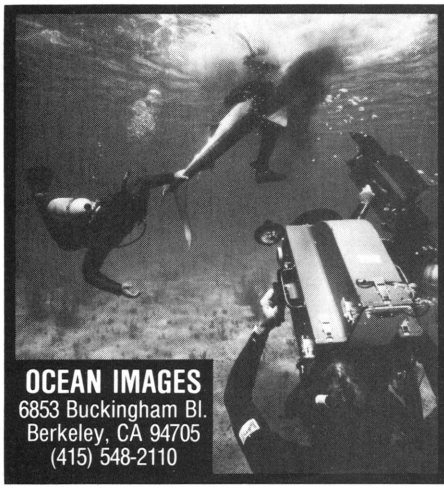

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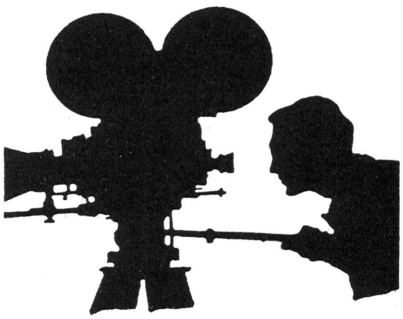
We were quite pleased with the results. There was just enough diffusion to take the edge off the image without softening it to the point that it could be considered objectionable. It appears to open up a new range of possibilities. It seems a very simple way of achieving very subtle and consistent tinting and contrast reduction as well as diffusion in the image. △



Things to Come . . .

The Color Purple. In our February issue, interviews with Steven Spielberg, Michael Riva, art director, and Allen Daviau, ASC, director of photography, will tell the story of the making of this exciting new film.

• • •

How Wilmer Butler, ASC, photographed *Rocky IV* is the subject of another article in Feburary.

• • •

Out of Africa, photographed in Africa with a new film from Agfa-Gevaert will be discussed in detail.

Realities of Low Budget Production

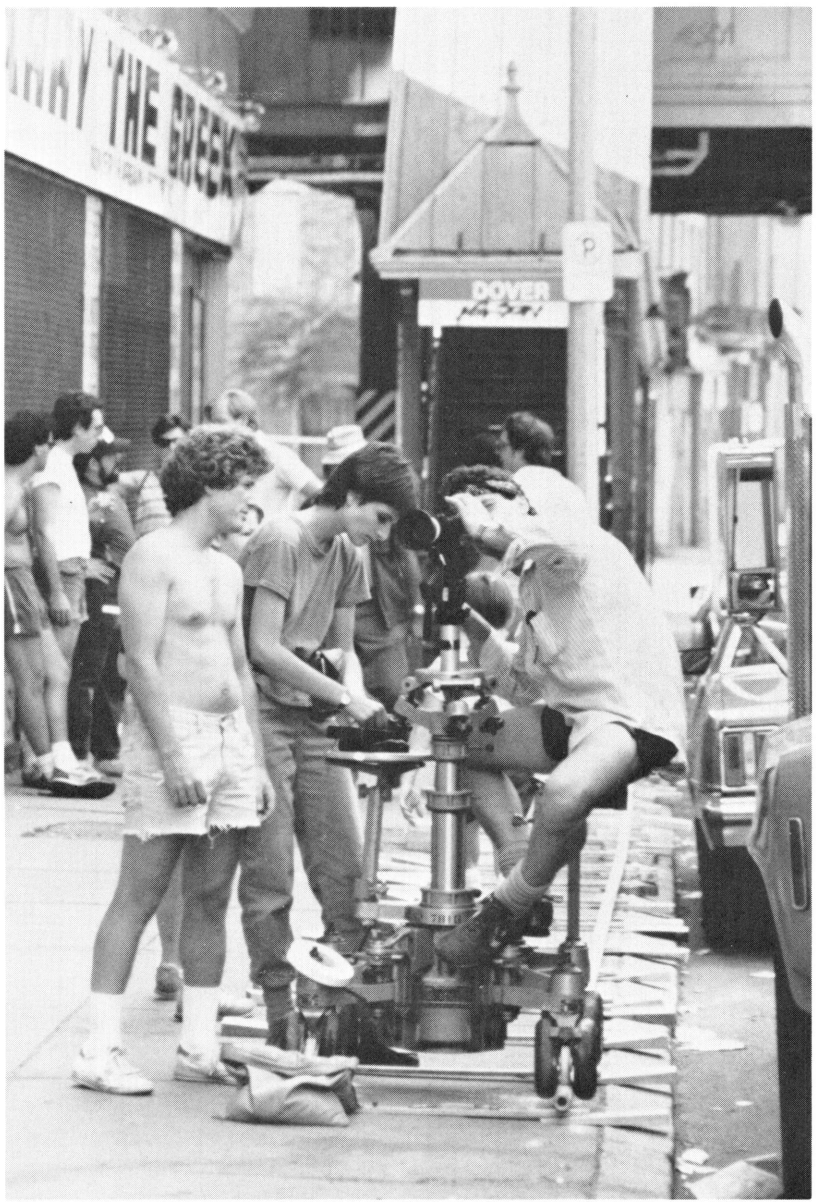
by Vilma Gregoropoulos

Just the Two of Us is a feature length film produced for $10,000 and shot in Super 8. It is the story of the friendship between Frankie and Joey, a couple of working stiffs who find a genie in the men's room of their favorite bar and who must rethink their values when made wealthy beyond their wildest dreams.

Writer/director Joe Spallino wanted to make a high quality film for release on television but didn't have the financial resources for a conventional production. Spallino met our crew while acting in One Night Production's *Love, Inc.*, a dramatic film for which we formed the principal crew. He wanted to use the same crew on his shoot and approached us with his project.

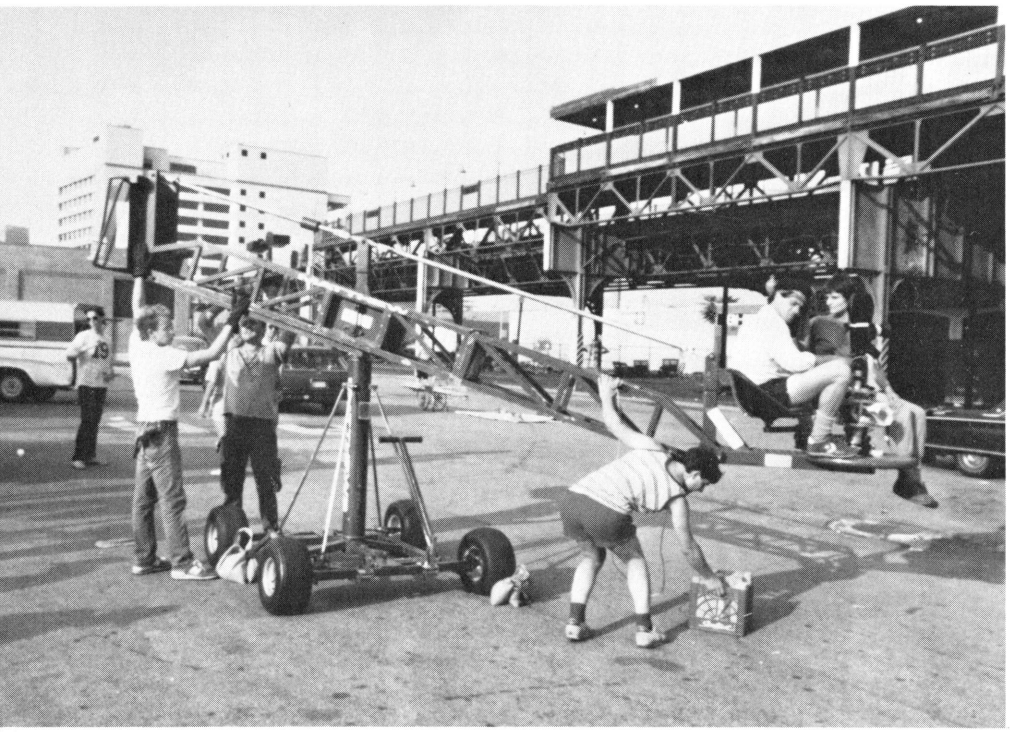
We had built up a core of professional crew members from people who knew each other through commercial production work in the Boston area, and we were all enthusiastic about working together again. Spallino, from his experience as an actor, had many professional actors already interested in his script. He also had contacts with Blake Films, a major grip and lighting equipment rental house in Boston. Blake was willing to lend him equipment, including HMI's, dollies, and cranes, at no cost when available.

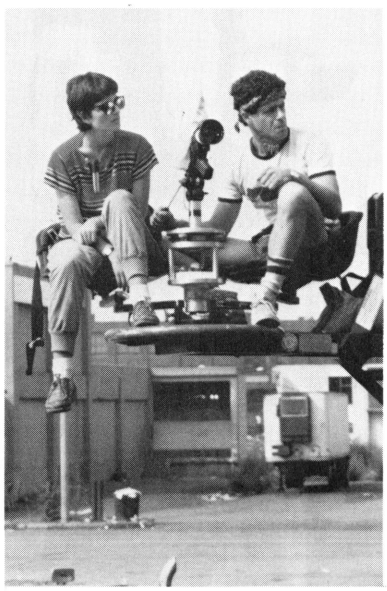
The decision to shoot in Super 8 was reached for several reasons, the most obvious being financial. The cheaper stock and processing costs would save a great deal of money, about a quarter of the cost of 16mm, and at the same time enable us to film with as large a shooting ratio as we wanted. This was important to Spallino because as one of the actors in his own film he was especially sensitive to the needs of his cast: he wanted the actors to feel they had given their best performance regardless of how many takes were required. In addition, Spallino and cameraman Dave Phillips had chosen to cover the action in extremely long master shots with a constantly moving camera which would also require a lot of stock.



Margolis, Gregoropoulos and Phillips prepare for a dolly shot at the Dover Station.

We weren't worried about a loss of quality from blowing up the image because the Super 8 film would be transferred directly to video and would only be viewed on television. Phillips and lighting director Lon Caracappa had recently completed a music video for Donny Thayer in Super 8 using Kodachrome 40. They were very pleased with the results and felt that





Weston Lant, Neil de la Pena and Wayne Simpson work the Tulip Crane. **Right:** ***Gregoropoulos and Phillips aboard the crane.***

we could get a higher quality image shooting K40 and transferring to tape than shooting in any tape format. They weren't worried about the lighting required by the slow K40 stock (ASA 40) because as mentioned, we had lights available to use on a professional scale and at no cost.

Their experience shooting Super 8 in the past had put them in touch with Phil Vigeant of Super 8 Sound who was interested in the project and had a Super 8 camera available that would meet the needs of a feature production. The Nizo 6080, manufactured by Braun of West Germany, has the capability of shooting in sync at 24 fps, can accept 200' (or ten minute) cartridges, and with a few customized accessories, was ready to shoot a feature.

Super 8 Sound designed a crystal sync control for the Nizo. To insure sync on our first shoots, we recorded sound on both a Nagra and on a fullcoat recorder that took its pulse from the camera. The camera has its own primitive sound system which we used so we could watch sound dailies (the film is sound striped.)

We used a mini Sachtler head designed for small cameras and, when using a dolly or a crane, a special head adapter designed by George Fardy of The Design Shop for use on the Donny Thayer video. The head, camera, and adapter are so light that when we used an extender on the dolly, we had to use a sandbag to add to their weight.

The Nizo has a permanently mounted Schneider 7 to 80mm zoom lens with a macro capability. After extensive camera testing we found that the lens started performing well between f.8 and f.4 and that approximately one stop is lost in the camera's beam splitter viewing system. We also feel that the lens gives a sharper image in the telephoto end and tried to avoid using the wider focal lengths.

The only real problem we encountered with the camera was with the 200' cartridges. After shooting about forty 200' cartridges we encountered a registration problem. We had the camera overhauled and pulled apart a sample 200' cartridge and found two problems – both caused by the cartridges. The cartridge has an internal loop. Its upper and lower halves are formed around a single sprocketed guide roller which has nothing that locks the film in place at any point – therefore there is no guarantee that the size of the loop will remain constant and in place. This will sometimes cause an intermittent jumping of the image.

A 50' cartridge, which is designed differently and doesn't rely on the same type of loop, can be used immediately after the problem occurs and with good results. The registration problem is in the basic design of the 200' cartridge – the interior of which is inaccessible to the camera assistant and cannot be checked. The jumping causes camera noise only if it becomes severe. (The Nizo, which is quite noisy, comes with a blimp but must be additionally soundproofed. We used down jackets for barneys.)

Although the Nizo has the capability of accepting the 200' cartridges it is primarily designed for use with 50's. The 200' cartridge is coaxial and is turned by the same torque motor used with the 50'. However the 200' cartridge means the motor is pulling four times the amount of film as the 50'. This factor combined with the occasional loop problem can throw off the torque. The camera must therefore constantly have torque and registration checked. Phil Vigeant put us in touch with other people doing extensive work in Super 8 and all of them seemed to have similar problems.

Our problem with the registration was aggravated initially by the fact that we could not get dailies back from Kodak for over a week and a half. With our schedule this meant two major shoots before viewing the first one. Vigeant, who was handling our dailies, eventually got the lab to agree to a five day turn around if we gave them at least 10 cartridges at a time.

We ended up shooting only master shots with 200' loads and covering everything extensively on 50' loads. Fifty feet of Super 8 at 24 fps is only two and a half minutes long so this meant lots of reloading.

We decided to shoot weekends because our main supplier of equipment could only lend us free equipment on the weekends. The weekend schedule worked to our advantage because the other commercial rental companies we needed, sympathetic to the needs of independent filmmakers, were more than willing to reduce their rates for us. They also understood our tight shooting schedule (every scene had to be finished in one weekend) and were very accommodating as far as pick up and return time went.

One weekend we needed a grip truck at the last minute, having exhausted our initial resource; got a fully equipped truck from Austin de Besche at a fraction of his normal charge, and were given till 5 a.m. Monday morning to return it. On another occasion we needed a dolly and got a package deal on a Chapman Hustler from Century Three Teleproductions, also at a very good rate. In this way we were never lacking in a complete inventory of equipment such as might be found on any feature film.

The weekend schedule also gave us our biggest asset: the availability of a full crew of professionals. A core of about a half dozen people worked on every shoot. The rest of the crew was drawn from a list of about 40 local film people interested in the project and willing to donate their available time. The sound recordists, Victor Iorillo of Sound's Rolling Inc. and Charlie Lew, were also more than willing to donate the use of their Nagras and microphones. We never had any trouble putting together a crew and never got negative responses from people asked to give up their weekends.

"When I get home after a long weekend of shooting," says sound man Chris O'Donnell, "I don't feel like I've worked for nothing. I feel like we've all done a good job, I've gained experience in my field, and I've enjoyed working with people who are good at what they do." He adds, "We are creating a community of people with their own area of expertise – with whom I can work in the future when I do a film of my own."

For script supervisor Eva Cabrera it was an opportunity to work in a good position on a feature. "The reason I got into the business was to do films – not corporate work. Up until very recently the only people who have got to work on features were highly experienced union people who have been in the business for years." For boom man Charlie Kelly too, it was a chance to work on something creative, where everyone was working together – not simply for an employer. Veteran grip/electric Terry O'Brian decided to work on the film because he was "impressed with the professionalism and organization" of it and enjoyed the atmosphere created by working with friends.

We were fortunate to be able to shoot in both locations and in a studio. A few of our crew members had converted 50 x 50 feet of their loft space into a working studio, as big as any in Boston, with a simple lighting grid and plenty of power. The studio gave Spallino and Phillips flexibility in blocking and lighting, even using set-ups as complicated as room to room dollies.

The bar scene in which the two friends discover a genie in the toilet tank of the men's room required a fully propped bar as well as an involved scene in the men's room where the genie appears and, to prove her power, transforms Joey into a woman. We decided to use a real bar because of the extensive propping needed to recreate a bar in a studio, and decided to build a set for the men's room in our studio to facilitate the complex dolly moves and lighting required by the long bathroom scene. Everyone worked on building the set, and Dave Phillips, who had done props on PBS movie *Concealed Enemies,* was able to get what was needed for the scene. A call to local prop person Tracy Doyle got us several real toilets and a pay phone – none of which we had to pay for. The size of our studio allowed us to include enough of the bar outside the men's room door to visually connect the two scenes.

On location we found that the people of Boston were more than cooperative in having a large crew set itself up on their front lawns. We never encountered problems with our long shoot-

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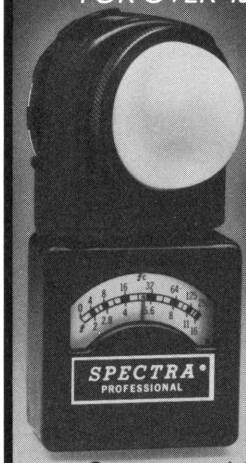

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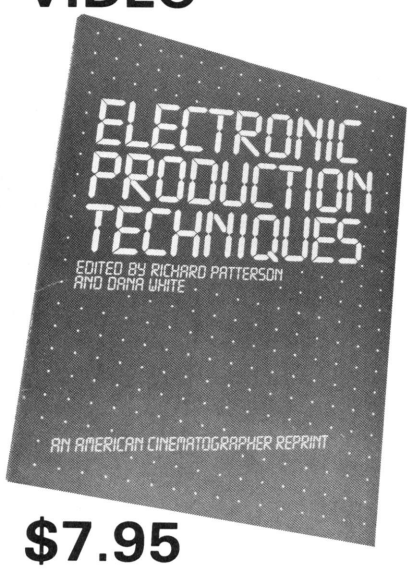

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ing days and discovered that most people in whose houses we filmed, rather than nervously watching a film crew take over, became involved in the scenes we were trying to create and even offered to help out. Generally our agreements were very informal – a "sure, go ahead" was all that was required for permission to shoot. Because of our sometime last minute schedule (getting a crane only when not rented to a paying customer) we did not always have time to get permits to shoot on public property – so we simply pirated locations.

One scene involved a crane shot of the two main characters getting off an elevated subway train in a rather rundown section of the city. The police came by after a row was caused by a wino (later placated with a bottle of wine) and questioned our right to be on the sidewalk. We found out that one advantage of Super 8 is that the camera is so small and unintimidating that, even with miles of dolly track, it is easy to finagle those "extra few minutes needed to finish up."

The sets for *Just the Two of Us,* a light comedy, had to suggest the cozy interiors of places familiar to the characters – their apartment, the family home, and in the end of the film, a firelit mansion. The lighting was dictated by lighting director Lon Caracappa's preference for using motivated lights and Spallino's blocking. We needed a lot of lights both for master shots that covered whole rooms at a time and to accommodate the slow stock. We tried to use HMIs whenever possible because they have a higher light output to electric input than conventional lamps. We also needed lamps powerful enough to give the correct stop when gelled for effect and to maintain the 3 to 1 contrast ratio throughout the scene that was required by a video transfer.

One master shot involved the living room, foyer, and staircase of Frankie and Joey's new mansion. The shot begins in the late afternoon with Joey, unhappy in his new lifestyle, sitting in his dark living room in front of the fire. The camera pans past a window, fireplace, and Joey on the couch, and dollies into the foyer where Frankie enters, has a comic exchange with the butler, and tries to sneak upstairs to

avoid a scene with Joey. Changing his mind, Frankie turns at the top of the stairs, and goes down to Joey in the living room, switching on the lights.

It was necessary to integrate the dark mood of the living room with the normal light in the foyer and the late afternoon light outside. A 2500/watt HMI was used to create a stained glass window effect (made out of a showcard and colored gels) against the living room wall. The HMI itself was given a half 85 to give acceptable color temperature without losing too much light. This effect came from the only direction the camera would not see so presented no problem for motivation and gave the room the somber rich atmosphere suggested by Joey's mood. The afternoon light coming through the window was made by two yellow gelled Mighties fully spotted through a bamboo shade. The subtle pattern created by this light, falling on Joey on the couch, works as the key light for the room until Frankie turns the light on. Joey is given an eyelight and fill comes from the stained glass effect which rounds out the room. The effect of the fire light was a Baby Ik spot heavily gelled orange, its cord jiggled in the socket to create conventional blinking, and a 2k Junior covering more than the Baby, gelled and spotted into a slightly moving 30 x 30 inch frame of full orange.

The foyer and the action of the butler had to be lit normally, showing the comic action of the butler and luxurious surroundings. The key light, a 2k Zip and baby baby, was gelled with 1/4 color temperature blue, to further the mood difference in the two rooms. As Frankie opens an off camera door the butler is bathed in the yellow afternoon sunlight. The crystal on the mantel behind the butler is enhanced with a side light from a midget with 1/2 color temperature orange. We used a baby junior with no color to give modeling to the rich wood-working in the staircase and foyer and used smaller lamps with 1/4 color temperature blue to bring the rest of the foyer to within the 3 to 1 contrast ratio. A Lowel soft 2k lights Frankie on the stairs. As Frankie moves through the two rooms he is lit first by the normal light of the foyer, walks past a practical between the two rooms which gives him only a strong sidelight, and passes into the darkness of the living room.

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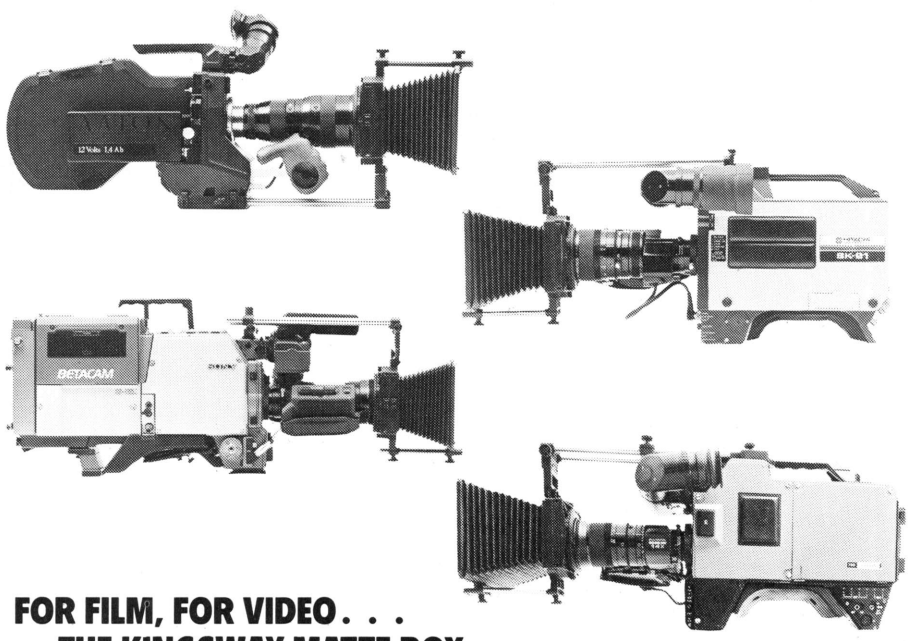

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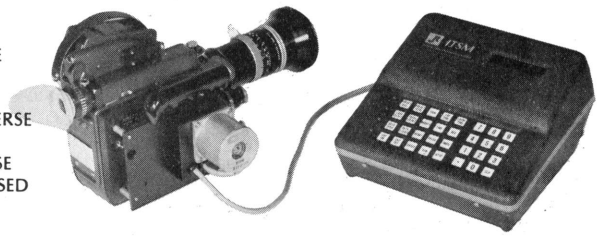

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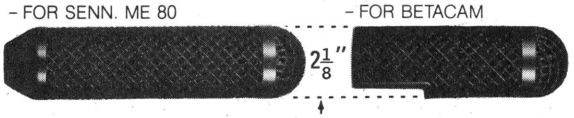

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At this point the camera has dollied back almost to its original position and Frankie turns the lights on. The key light of the living room changes to the light of the wall sconces. The two Mighties outside are shut off and a Mighty inside, gelled full 85 becomes the key. The rest of the room is filled with 1/2 color temperature orange light and the shot ends.

The mansion was part of our last weekend of shooting and ended the principal photography.

Because *Just the Two of Us* is intended for television release we knew we would have to transfer to video at some point in the process. Spallino wanted to avoid the considerable expense of workprinting or transferring all the dailies – about ten hours worth. This proved to be a considerable inconvenience as we could not afford to scratch or dirty the camera original and thus allowed ourselves only one viewing. Fortunately we had access to a three tube video camera and a simple 3/4 inch editing system, consisting of two decks and a controller (without time-code) at the audio visual department of a museum. We also had a high quality Super 8 projector which we had Super 8 Sound modify with a five bladed shutter for video transferring. Our first step was to transfer all the dailies to tape with the aid of a small rear projection viewer. This gave us a relatively high quality working-copy. We recorded our 1/4 inch sound tape from the Nagra onto the audio track of a video cassette without losing sync, and synced the sound and picture on video.

Trying to shoot such a low budget movie requires many dedicated people and a very motivated producer, in order to keep the ball rolling week after week. The final analysis comes however, not with how much energy is spent, but with the quality of the final product. In looking at *Just the Two of Us* on video we see a high quality picture with sharp images and rich colors and the high standard of production values that feature work has. For us, Super 8 worked. △

The author was camera assistant on the production and was assisted in preparation of this article by Wayne Simpson, dolly grip; Lon Caracappa, lighting director and Dave Phillips, cameraman.

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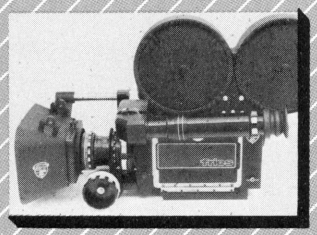

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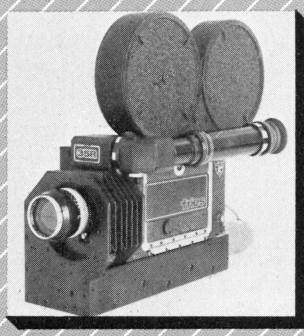

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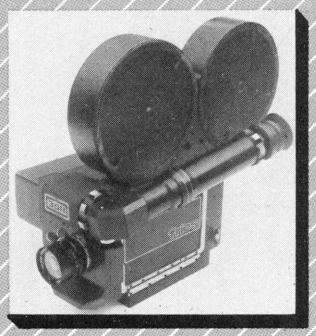
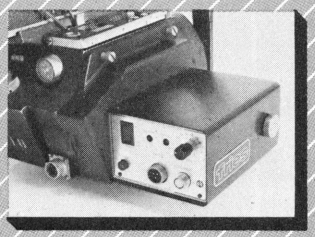


35R3 Rotary mirror reflex conversion to the Mitchell Std./ High Speed camera. Features include interchangeable Arri, BNC-R and Nikon lensmounts, orientable viewfinder, video assist, and a high-speed/crystal motor.



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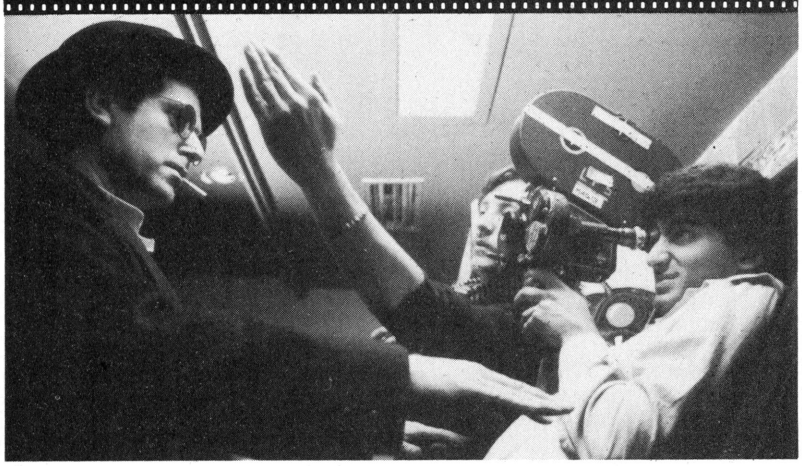

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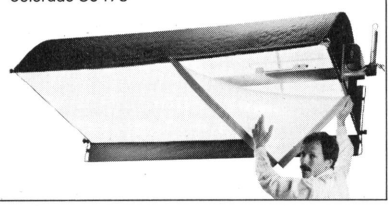

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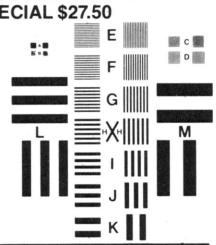

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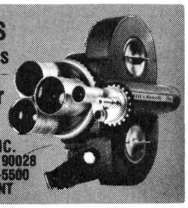

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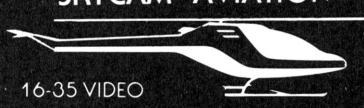

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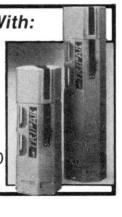

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Advertiser Index

Alan Gordon: 66, 68, 75, 91
Apogee: 5
Arriflex: 15
Barbizon: 87
Bellevue Pathe: 93
Berc: 32
Birns & Sawyer: 23, 47
Brooks Inst.: 80
Camera Mart: 17
Camera Service Center: 73
Carpenter: 93, 95
Century Precision: 74, 91
Chambless: 95
Cine Pro: C-2
Cine Sound 5: 91
Cinema Products: 24
Cinematography Electronics: 32
Cinequipt: 82
Clairmont: 8
Colt Helicopter: 6
Columbia College: 88
Crown International: 18
Dreamlight Images: 94
Du Art: 7
Ecam: 31
Egripment: 4
Elemack: 22
Energy Production: 70
Excalibur: 31
FAX: 13
Fries: 89
General Camera: 1
Great American Market: 10
Harrison: 75
Helix: 14
Huston: 81
Image Devices: 93
Intercontinental: 88
Intern. Film Workshops: 75
JK Camera: 83
Joe Blasco: 67
KB Systems: 92
KEM: 33
Klein: 26
Knox: 4
Larry Edmunds: 92
Laumic: 47
Lee Filters: 27
Lee Lighting: 86
Light-Wave: 88
London Intl. Film School: 89
Lowel Light: 2
LTM Corp.: 25
MacGillivray-Freeman: 90
McConkey: 65
Merkel: 93
Mole Richardson: 93
NCE of Florida: 90, 93
Nagra: 80
Nalpak: 90
Nevada: 26
Newsfilm: 94
Norm Beerger Prods.: 92
Norris Film: 82
Ocean Images: 82
Optical Textile: 11
Palmer: 70
Photo Research: 24
Plume Ltd.: 90
Rafik: 91, 92
Roessel Cine: 66, 68
Rosco: 20
Rycote: 82
SMS Prods.: 91
Saxon: 91
Skycam: 90
Stevens: 93
Strand Lighting: C-3
Studio Film & Tape: 92
Super-8 Sound: 73
Technological: 74
Tiedemann: 24
Tiffen: 19
Ulland: 6
WRS Lab: 16
Whitehouse: 93
Williams: 92
Yale Lab: 94
Zellan: 86, 87, C-4

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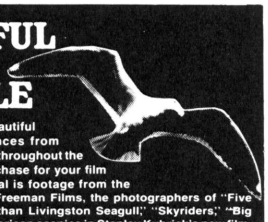

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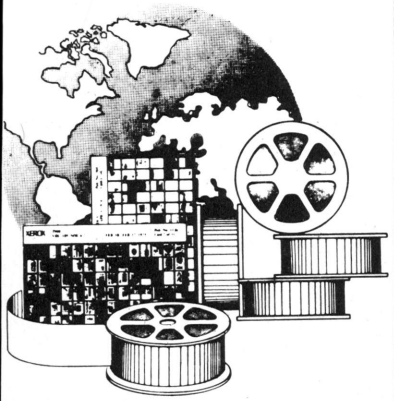

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From the Clubhouse

The relatively new art of computer graphics was demonstrated dramatically at the ASC Clubhouse on October 28 by Digital Productions, Inc. This was the fifth in the State of the Art series initiated early this year by ASC president Stanley Cortez. Michael Whitney made the multi-media presentation. His father, John Whitney, a pioneer in the technique of computerized animation, and Gary Demos, a leading technician, stood by to field some of the audience's questions.

A discussion of the technical aspects of the process was accompanied by slides. Motion picture excerpts from productions such as *2001, The Last Starfighter,* and *D.A.R.Y.L.,* and videotapes of American and foreign commercials provided a fascinating overview of the variety of effects that can be achieved via computer.

* * *

More than 200 guests gathered at the Clubhouse on Oct. 31 for the biennial party for advertisers held in conjunction with the SMPTE conference. The evening was hosted by members of the Board of Governors, the Editorial Advisory Committee and American Cinematographer staff members. Departing guests were presented with monogrammed coffee mugs as a memento of the evening.

Daniel Fapp, ASC, was honored by Mount Olive #506, Masonic Lodge, on November 5 as a 50-year veteran of the organization.

This Los Angeles Masonic chapter has many members from the film industry where Fapp spent 42 years as a cinematographer. He was with Paramount Studios for 35 years and was nominated for Academy awards seven times. He won an Oscar for cinematography for *West Side Story* (1961).

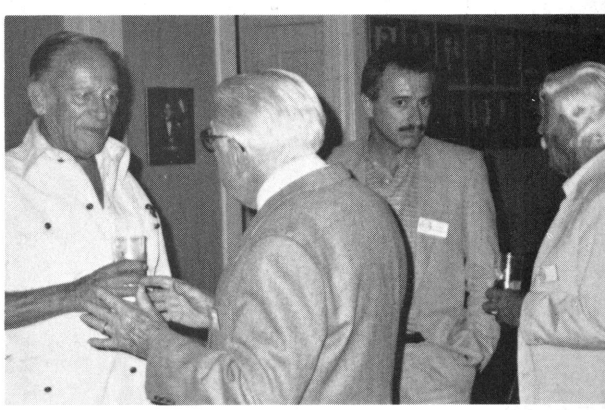
* * *

The first room in the new 81-bed residential skilled nursing addition at the Motion Picture and Television Hospital will be named in honor of the American Society of Cinematographers. The announcement was made by Stanley Cortez, president of A.S.C. and John L. Dales, hospital president. The A.S.C. pledge to fund a room in the addition was made in 1981 even before the new facility was designed.

The A.S.C. Holding Corporation and members of A.S.C., contributing through its custodial trustees have raised more than $50,000 to become the first organization to endow a fully equipped room in the new hospital. The A.S.C. has also pledged another $50,000 contribution to endow a second room.

Custodial trustees of this effort are: Alfred Keller, chairman; Lester Shorr, Joseph Westheimer and Harry Wolf.

ASC members Ted Voigtlander, Linwood Dunn, Valker Bahnemann, and Harry Wolf converse at advertisers' party.



Christmas, 1985

It isn't often that the public gets a chance to see a new family Christmas show. The television networks regularly trot out two versions of *Miracle on 34th Street,* both exceptionally likable, and the marvelous Frank Capra fantasy, *It's a Wonderful Life.* Sometimes the Menotti opera, *Amahl and the Night Visitors,* gets aired, but it is about as appealing to most youngsters as a visit to math class. The 1984 TV Special, *The Night They Saved Christmas,* was a beautifully crafted production but somehow failed to find its audience.

For 1985 holiday season theatrical showings Walt Disney Productions has released *One Magic Christmas,* a Canadian-made feature which has a lot going for it. The story by Thomas Meehan, Phillip Borsos and Barry Healey, scripted by Meehan, bears a generic resemblance to *It's a Wonderful Life,* with a guardian angel coming to earth to prove to a desperate, morose mother that life is worth living and that her Scrooge-like attitude towards Christmas is destructive to herself and her loved ones. Borsos directed and the key role of the mother is played by the eloquent Mary Steenburgen. Frank Tidy, BSC, whose several Canadian projects include the superbly photographed *The Grey Fox,* was the director of photography.

Filming was done on location in Scarborough, Meaford, and Owen Sound, Ontario, largely on the streets and in practical settings. Post production work also was done in Toronto.

Unfortunately, the modern-day attempt to combine the charms of Disney and Capra is not entirely successful. The Christmas angel, although well played by the dependable Harry Dean Stanton, has a sinister look emphasized by the fact that he is usually seen by night under harsh street lights, by the actor's angularly thin features and his costuming, a broad-brimmed hat and a long black coat that suggest the cover of a "Shadow" pulp magazine of the Thirties. Nocturnal shots of the angel talking to young children on icy, deserted streets create an unwanted sense of unease.

It is also undeniable that the horrors are laid on too heavily during a long sequence which is resolved only at the climax. This includes an attempted bank robbery in which Steenburgen's husband is shot to death, the kidnapping of her two children, and the apparent death of the youngsters and their captor (himself a father desperately trying to save his family) when the car crashes into a river and is swept away with great chunks of ice.

Tidy's cinematography is often striking, particularly in the scenes of snow-covered streets by day and night. Some of the latter scenes were illuminated by the recently introduced Musco light rig which provides a dramatic, somewhat surreal key. Sometimes a pervading sense of isolation, reminiscent of the atmosphere created in the bypaths of Vienna in *The Third Man,* is achieved.

On the debit side are several miniature settings which really look like minatures, and a trip to Santa Claus' home at the North Pole which doesn't quite work.

Obviously, *One Magic Christmas* is not the hoped-for Christmas Classic for the Eighties. It is, however, a worthy try which will be welcomed by a large number of people who have become weary of space ships and psychopathic killers.

—G.T.

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with FILM DATA TRACK

FILM DATA TRACK is an optical time code system which provides contact-f exposure of SMPTE time data on the film edge. With **FDT**, the original negative can transferred automatically to video work prints, since the **FDT** code is simply a particu expression of the SMPTE code used in video. This code compatibility means that b synchronizing of rushes and negative cutting can be carried out entirely automatica

The **FDT** system is currently available on all Aaton XTR 16mm cameras. **FDT** can be read and transferred at the following facilities:

DU ART FILM LABS
245 W. 55th St.
New York, NY 10019
212/PL7-4580

ONE PASS INC.
1 China Basin Bldg.
San Francisco, CA 94107
415/777-5777

RUXTON
611 N. Orchard D
Burbank, CA 915
818/845-3724

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